SPECIAL REPORT

JAPAN'S MELTDOWN Earthquake. Tsunami. Nuclear Disaster. Resilience.





TIME VOL. 177, NO. 12 | 2011

4 Editor's Desk

BRIEFING

9 | Verbatim Japan's Emperor calls for compassion; the Palestinian President

Palestinian President condemns violence; director Steven Soderbergh to retire

10 | Closeup A town in Free Libya falls to Gaddafi

12 | World Bahrain, Syria quash protests

14 | Nation Mark Halperin on

Japan's nuclear secrecy

16 | Milestones New entrants in Rock and Roll's Hall of Fame; farewell to a Black Panther and to the composer of a beloved Christmas song

COMMENTARY

aftershocks

19 In the Arena Joe Klein on how Obama should help the Middle East

23 | Curious Capitalist Bill Saporito on the quake's market

ON THE COVER:
Photograph by
Aly Song—Reuters



Rescue workers carry victims in Japan. Photograph by Dominic Nahr—Magnum for Time

FEATURES

24 Japan's Tragedy

What happens when disaster strikes even the most prepared of nations by Nancy Gibbs Plus, pictures from the quake zone by James Nachtwey

34 Meltdown

The failures at Fukushima Daiichi—and how bad it will get by Jeffrey Kluger

39 Our Nuclear Future

The U.S. has been planning more reactors Can we afford it? by Michael Grunwald

42 Testing Resilience

The struggle for survival and sanity in Japan's worst-hit zone *by Hannah Beech*

48 10 Ideas That Will Change the World

Our best shots for tackling our worst problems, from war and disease to unemployment and deficits

THE CULTURE

68 Pop Chart Spider-man delayed; a Yellow Submarine remake capsizes

70 | Theater The duo behind South Park take on Broadway

74 | Food Josh Ozersky on why McDonald's

mascot might be bad for business

James Poniewozik on the NPR video sting

81 | Books New works from Kate Atkinson and Sarah Vowell

82 The Awesome Column Joel Stein, champion

matchmaker

84 | 10 Questions
Dan Savage



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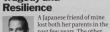
Photo-Essay: The

Calamity of Japan's 9.0-Magnitude Quake NewsFeed: Ancient

Human Bones Discovered in Florida Woman's Backyard



Tragedy and



EDITOR'S DESK

past few years. The other night she told my wife and me that, in a strange way, the only consolation for her

is that they do not have to live through Japan's current sorrows.

It is hard to watch what is happening to that ancient island nation. But as Hannah Beech-our China bureau chief. who is half Japanese-writes, Japan's culture is one of deep resilience. Adversity defines who the Japanese are. Hannah and Hong Kong-based reporter Krista Mahr have been filing all week from the front lines in Japan, accompanying a father on a quest to find his daughter in the hard-hit city of Sendai, talking to evacuees being tested for radiation, standing with thousands of Japanese citizens in line to buy food and water.

TIME photographers Jim Nachtwey and Dominic Nahr have been on the ground as well, documenting the aftermath of the devastating earthquake and tsunami. Jim, who has photographed war and destruction all around the planet, says, "The scale of this is beyond belief. It's apocalyptic." You can see their powerful photographs in this issue and on LightBox (lightbox.time.com), our new photo blog edited and curated by TIME's award-winning photography department.

When it comes to the risk of a nuclear disaster, we tend to obsess about the possibilities and ignore the probabilities. Jeffrey Kluger's piece on the Fukushima reactors analyzes the likelihood of a Chernobyl-level scenario. But as Michael Grunwald's agenda-setting piece on the future of nuclear power in the U.S. shows, it's not the danger that will set back nuclear power in America-it's the cost.

Richard Stengel, MANAGING EDITOR

THE CONVERSATION

data mining generated 5,000 Likes on Facebook, 2,000 tweets and a dose of the creeps all around. One commenter cried for rebellion. suggesting that Internet users "randomize all data," provide false information inconsistently and baffle privacy invaders into defeat. A TIME.com story on Governor insensitive. "Are you calling for Walker's assassination, or are you making a wish list?" wrote one.

Joel Stein's cover story about online

Scott Walker of Wisconsin prompted heated criticism from readers, who found its headline (see list, right) Another reader responded, "The title is a play on words and refers to his political career very obviously. The article does not call for violence against him, nor does it endorse it."

MAIL

Oh, Big Brother!



Bravo to Joel Stein for his cover story on data mining [March 21]. His sarcasm and wit compelled me to read in its entirety a piece that otherwise would have had my eyes glazing

over while thoughts of whatever else I ought to have been doing danced in my head. Now acutely aware that a cyberprofile of me exists, as I glance to my right and see the ad for "birth control you don't have to take every day," I wonder just what those "facts" state about me. Yikes! Iane E. Donadio, ANDOVER, N.I.

How appropriate that in the online version of your article, a dozen companies are likely data mining for Time. I'm glad to hear that all the information being collected on me as I browse is being used for my benefit. (Insert sarcasm emoticon.) For those looking for additional protection when browsing, please try No Script and Taco Abine for Firefox as well as Ghostery, which is mentioned in the article.

Rick Blanke, RENTON, WASH.

The Limits of Strictness

Thank you, Nancy Gibbs, for bringing to light the stupidity of no-tolerance authority ["Zero Tolerance, Zero Sense," March 21l. During my sophomore year of high school. I received a two-hour extended detention for cutting class to attend a Holocaust survivor's book signing at our school that was open only to certain history classes and not mine. I am currently 19 years old, and in retrospect, I did learn a valuable lesson: authority is a mockery of itself in its inability to view the shades of grav. Katherine Kula, BOURBONNAIS, ILL.

As a former principal, I think those school officials who adhere so strictly to the letter of zero-tolerance rules are cowards. They are afraid to make honorable decisions. They do not want to even have to make decisions. They want a prescription to follow so they can say they were just adhering to the rules.

James K. Gant, DENTON, TEXAS

Gibbs captured some of the absurdities in our school systems. We will suspend, expel or seek counseling for a child in possession of a Boy Scout tool or dinner





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How to Help Libya

Re Fareed Zakaria's "The Libyan Conundrum" [March 21]: Libya is not a present danger to the U.S., but Gaddafi's fight to stay in power does threaten international security. The U.N. Security Council, not the U.S, should act decisively to end the fighting. Nothing will undermine the Libyan opposition faster than unilateral American intervention.

Paul Kozar, HARWICH, MASS.

Campaign 2012: An Ugly Start?

Re Joe Klein's "Huckabucking" [March 21]: President Obama's more cosmopolitan and nuanced worldview may well be influenced by his upbringing. Mike Huckabee's narrow worldview, dislike of the President and obsession with the anticolonial Mau Mau of Kenya are almost certainly influenced by his having spent his whole life in Arkansas. The state's antimiscegenation law would have prevented the President's parents from marrying.

Stanley Kalemaris, MELVILLE, N.Y.

Republican leaders should announce that anyone who makes the President's citizenship an issue in a campaign will receive no funding from the Republican National Committee. They should be telling their constituencies that their party has far more important things to work on-health care, the deficit, global warming, the economy, the size of government, etc. Anyone who wastes time and money harping on something that is both not true and pointless to discuss is not concerned with the best interests of the citizenry and their party.

Philip Barnett, SCOTTSDALE, ARIZ.

Revolution Redux

Send an e-mail:

attachments

letters@time.com.

Please do not send

WRITE TO US

Re "1848 vs. 2011: In the Shadow of the Past" [March 21]: If I were an advancedplacement social-studies teacher and

FORUM

Playing Fair

Reactions to Ioe Klein's column on Mike Huckabee's spreading misinformation about the President [March 21]:

Like it or not, this is the way politics works. When faced with a primary, a politician appeals to the fringes. **David Royce**

University City, Mo. Where are Huckabee's

constructive comments? Jefferson. Lincoln, FDR and JFK must be turning Ev Duthoy Park Rapids, Minn.



Misinformation? I call it propaganda Shouldn't employment by Fox News be a disqualifier for aspiring Presidents?

Vince Sigman Malta, Ohio

Mitt Romney's enacting French-style health care reform does not make Obama any less of a European-style

George Naniche Moraga, Calif.

SOUND OFF

'Given his patriotic interpretation of adultery, Gingrich would surely concede that Bill Clinton was a great President and apologize for his previous attacks.'

Natalia Medina Coggins, ALBUQUERQUE, N.M., on "Something Old, Something Newt," March 21



Kurt Andersen had turned this in as his senior thesis, he would have received an A-plus (and a standing ovation) for pulling all these events together in such a coherent manner.

Patsy A. Jaynes, CONIFER, COLO.

Language, Language

I'm hoping you simply overlooked the offensive, provocative nature of the title of your story on Scott Walker ["Wisconsin Governor Wins, but Is He Now Dead Man Walker?" TIME.com, March 12]. As a longtime reader of TIME, I find it deeply disappointing that employees of your magazine approved such wording. Please change it. Darcy Mahler, MADISON, WIS.

A headline like the one you used is how you turn a well-written, on-point article on its head. It is in very poor taste, given the death threats against Walker, Why take the same path the Sarah Palin camp did with its crosshairs campaign? Dave Matthias, ASTON, PA.

Nitpicker Know-How

Fifteen years ago, when my older son came home from first grade with lice. I researched and quickly rejected all recommended methods ["Bugged Out." March 21l. The chemicals were scarily harsh, the shampoo didn't work, and the combs weren't fine enough. I gave him a couple of homeopathic teething pills to calm his nerves, sat him down in the kitchen, put on a good pair of glasses and spent 90 minutes picking the nits out of his hair. We had to do it only once. Now the story is a legend. Pay \$500? Are you crazy? And miss the opportunity to create a legend? Barb Gazeley, PORTLAND, ORE.

Save your money! Treat the child's head

with an over-the-counter lice product, buy a cheap Safari flea comb and comb the child's head twice a day until you get no bugs for two consecutive weeks.

Karen Abruzino, HUDSON, OHIO

He's a Contender

As a student of government (and in light of my still developing political principles), I write to praise the clarity and rationality of David Brooks in 10 Questions [March 21]. What's he doing in 2012?

Phillip A. Wood, SOUTH BEND, IND.

SETTING THE RECORD STRAIGHT

⇒ In "A Blood Test for Down Syndrome" we said Down syndrome was caused by an extra set of caused by an extra set of chromosome 21.

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Briefing

'I hope from the bottom of my heart that the people will, hand in hand, treat each other with

1. AKIHITO, Japanese Emperor, in a rare appearance on live television, urging his nation—wracked by an earthquake, a tsunami and an ongoing nuclear crisis—to join together in solidarity

'His Holiness's wish is supreme for any Tibetan, but we are the representatives of the people. We need to take care of their sentiments as well."

2. PENPA TSERING, speaker of the Tibetan parliament in exile, saving an "overwhelming majority" of Tibetans do not want the Dalai Lama to retire from political life, a decision he announced on March 10

'In the 21st century, it's not enough to leave no child behind. We need to help every child get ahead."

3. BARACK OBAMA, asking Congress to rewrite the decade-old No Child Left Behind law—which requires that public school students be measured by regular testing—by this fall; critics dismissed the deadline as arbitrary

'This was inhuman and immoral. We deplore this incident.'

4. MAHMOUD ABBAS, Palestinian Authority President, condemning the killing of a Jewish settler family in the West Bank, a tragedy that ruptured the relative quiet of the region and highlighted the stalemate between Abbas and Israeli Prime Minister Benjamin Netanyahu over prospects for peace

'When you see those athletes hang on one or two seasons too long, it's kind of sad." 5. STEVEN SODERBERGH, Oscar-winning director, saving he will retire after filming two final movies





millionaires who say they do not feel rich, according to a survey by Fidelity Investments. Many said they would need to have at least \$7.5 million in order to truly feel wealthy

85,00

number of protesters on the streets of Madison, Wis., on March 12 and 13: as many as 100,000 showed up at the state's largest demonstration since the Vietnam War



equivalent to \$135 million. that have yet to be exchanged in Nepal, where new bills featuring Mount Everest will replace ones depicting the former King

charge, beginning in 2014. for a round-trip flight on a Soyuz spacecraft to the International Space program ends this year





World



Revolution Meets Reality. The bloom comes off the Arab Spring as old regimes fight to keep power





1 The Gloves Come Off

BAHRAIN The government invited troops from neighboring nations and declared a state of emergency in a bid to end weeks of protests against monarchical rule. Security forces clashed with demonstrators in the heart of the capital. Manama, leading to at least six deaths. One prominent opposition member described the crackdown as a "war of annihilation." A strict curfew appeared to have snuffed out the demonstrations for the time being

For weeks, the protests had been peaceful, with the opposition A young man is treated for shrapnel wounds after a police crackdown, left; protesters confront Bahraini police in Manama, below left

calling for reforms leading to a constitutional monarchy. (Some groups demanded that the royal family relinquish all power.) Tensions escalated after the March 14 arrival of hundreds of soldiers from Saudi Arabia and the United Arab Emirates—invited by King Hamad bin Isa al-Khalifa to help stabilize the situation. It was not clear if foreign troops were used in the crackdown.

Fueling the upheaval in the tiny island nation is a sectarian divide between the Sunni al-Khalifa royal family and the majority Shi'ite local population. Shi'ites say they suffer systematic discrimination by the state. The intervention of another Sunni dynasty—that of the Saudis—led to fears of a regional crisis: Iran, the Shi'te power of the Middle East, angrily denounced the move.

The U.S., which uses the Manama harbor as a base for its 5th Fleet, warned citizens to avoid Bahrain. President Ohama called the Kings of Bahrain and Saudi Arabia, advising "maximum restraint." Days before thatest crackdown, Defense Secretary Robert Gates met with Bahrain's leaders and called for quicker reform. That now seems like a distant prospect.



2 Insurgencies All Around Him, Autocrat Digs In

governor was stabbed after his bodyguards allegedly opened fire on antigovernment demonstrators who had mobbed his convoy. The incident was the latest clash between forces loyal to embattled President Ali Abdullah Saleh and those calling for an immediate end to his three-decade rule. More than 30 people have died in recent weeks, with particularly intense clashes around the main university campus in the capital, Sana'a, and the port city of Aden, where protesters burned down a police station on March 14. A host of tribal and factional rebellions simmer in this fractious, impoverished nation. Critics of Saleh, a Washington ally, bridle at his regime's restrictions on political freedom and complain of rampant corruption among his officials and family members. An indication of the government's nervousness: authorities expelled several Western journalists, including TIME's Oliver Holmes. One official cited

"national-security

reasons."

3 There's No Bashing Bashar

SYRIA In a rare display of dissent, hundreds marched in Damascus to demand the resignation of President Bashar Assad, But the demonstration. organized on Facebook. was short-lived: reports say police and progovernment thugs violently quashed the protests. As political upheaval has gripped much of the Arab world. Assad-President since 2000, following three decades of his father Hafez's rule-has looked unshakable. That's in part because many Syrians see him as a committed, albeit cautious, reformer. Dissent is deterred by the regime's brutal reputation: memories are fresh of the 1982 massacre of thousands in the city of Hama, where government forces crushed an Islamist uprising. Many opposition parties are banned in Syria, and scores of political prisoners languish behind bars.



PRESIDENT BASHAR ASSAL

FROM TOP: JAMES LAWLER DUGGAN—AFP/GETTY IMAGES; AFP/GETTY IMAGES; 2. YAHYA ARHAB—EPA: 3. MIGUEL MEDINA—AFP/GETTY IMAGES; 4. YURI KOZYREY—NOOR FOR TIME: 5. EPA



4 Gaddafi Offensive Has Rebels on the Run

LIBVA Troops fighting for Libyan dictator Muammar Gaddaf steadily reclaimed a series of strategic coastal towns that had been held by the rebels. All signs pointed to a siege of Benghazi. Libya's second city and the birthplace of a revolt against 40 years of Gaddaff rule that looks increasingly doomed. The tables have turned since early March, when scores of journalists travelies. The arrival of the rebels and Gaddaff's toppling. The

A REBELLION IN RETREAT

A merciless weeklong campaign by forces loyal to Gaddafi led to a string of rebel defeats buoyed by the defection of key Gaddafi allies. But the rebels, most equipped with nothing more than small arms, were no match for a ruthless government counteroffensive that deployed artillery and naval and air power. On March 16, Misratah, the last key rebel-held city in Libya's west, came under sustained bomhardment. The shaken leaders of the rebellion repeatedly pleaded for foreign help, but the international community remained divided over military intervention: Britain and France favored a no-fly zone over Libya, but U.S. officials said it would be ineffectual. Western indecision contrasted with the stark choice Gaddafi gave the rebels surrender, flee or die.

country's east had effective independence.





5 The King's Speech Gets Poor Reviews

MOROCCO After three weeks of nationwide protests, Mohammed VI unexpectedly announced sweeping constitutional reforms. The changes. which would in theory lead to free parliamentary elections and the shrinking of the monarch's authority, are aimed at mollifying protesters who have long been frustrated by the stifling power of the court and the perceived corruption of many people associated with the royal family. But the King has made similar promises in the past and failed to follow through: not holding their breath, the protesters are planning mass demonstrations on



The Big Questions

By Mark Halperin

Why is the Japanese government so secretive about the details of the nuclear accident?

Historically, government officials in Japan have taken a paternalistic, we know-best posture toward their constituents—and the nation's citizens have rarely objected. Its leaders have a propensity to put self-preservation and caution ahead of bold action and open dialogue. Plus, reliable information from the damaged reactors has been sketchy and can change frequently.

What, in the Middle East, is the Obama Administration really worried about?

Iran. Amid continued furmoil from Libya to the Persian Gulf, there is no higher priority in the White House than halting the expansionist dreams of Mahmoud Ahmadinejad. That's why the Obama team didn't squawk very loudly when the Saudis moved into Bahrain on March 14 to help quell a Shite rebellion there, while warning other governments in the region to but out.

When is Obama going to step up and show some

actual risk-taking leadership on deficit reduction? Most of the President's men and women expect a few more acts to play out before the climactic scene in which their boss fulfills his promise, breaks partiasa gridlock and tries to rescue the nation from huge deficits. Some senior Republicans and more than a few congressional Democrats think a grand bargain isn't going to get any easier after the fights over this year's budget and federal debt ceiling bloody the halls of Congress. But the White House is being guided by an old Washington truism. Nothing happens on Capitol Hill one microsecond before it must.

Always Room For One More

Michele Bachmann's rhetoric can strip paint. The Republican Congresswoman says Barack Obama may hold "anti-American views" and runs a "gangster government." She expresses "grave doubt" about whether America "will ... endure." Global warming is not just unproven but an outright "hoax." And voters and politicians need to "make a covenant, to slit our wrists" in the name of repealing health care.

Many Republicans can't get enough of this sort of talk, which is why Bachmann is testing the waters for a 2012 White House run. Some people dismiss a possible Bachmann run as a publicity stunt. Others say she's not ready for prime time, pointing to her twin gaffes during visits to states that hold early primary votes. (In New Hampshire, she claimed the American Revolution began there, rather than in nearby Massachusetts, and in Iowa, she implied that the Founding Fathers had ended slavery.)

Yet strategists in both parties say Bachmann could upend the GOP primaries if she gets in. "She could certainly have an impact," says



Michael DuHaime, who managed Rudy Giuliani's 2008 bid. And that tells you something about the continuing GOP thirst for an exciting candidate in 2012.

The other contenders former Massachusetts governor Mitt Romney, former House Speaker Newt Gingrich, Mississippi Governor Haley Barbour, Indiana Governor Mitch Daniels and former Minnesota governor Tim Pawlenty-don't yet stir Evangelical Christians and hard-core Tea Partyers who dominate the primary process. A March 15 Gallup survey found that 24% of GOPers hold a "strongly favorable" view of Bachmann. That's second only to the showing for Mike Huckabee and well ahead of that for contenders like Romney. Barbour and Pawlenty. It's one reason she was able to raise a remarkable \$13.2 million in her House re-election campaign last year.

It's also a reason to think sho could be a force in the low out of the primary process. Voters in low alove an underdog, especially a conservative one evange-list Pat Robertson finished ahead of George H.W. Bush there in 1988, and Huckabe won in 2008.

Bachmann sounds game. Speaking on a conservative radio show earlier this month, she pledged that if she runs, the first thing she would do in a presidential debate "is offer my birth certificate so we can get that off the table."

-MICHAEL CROWLEY

Bachmann and her megaphone excite the GOP base

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Milestones



Hugh Martin It was meant to be just a

consoling lullaby ludy Garland sings to little Margaret O'Brien in the 1944 MGM musical Meet Me in St. Louis. But Hugh Martin's "Have Yourself a Merry Little Christmas" became one of the most longing and long-lived of seasonal songs. Martin, who died March 11 at 96. wrote scores for Broadway (Best Foot Forward) and movies (Athena) with his writing partner Ralph Blane, but he said St. Louis' hit tunes ("Christmas," "The Trolley Song" and "The Boy Next Door") were all his own. Converting to Seventh-Day Adventism, Martin reset his signature hit as "Have Yourself a Blessed Little Christmas," Sacred or secular, it remains a poignant carol for all Christmases. -RICHARD CORLISS



INDUCTED

Alice Cooper, Neil Diamond. Tom Waits, Dr. John, Darlene Love

A new class of old legends was welcomed into the Rock and Roll Hall of Fame on March 14. and this year's lineup exemplified the hall's famously (and sometimes bafflingly) all-inclusive nature. There was boomer popster Neil Diamond, shock rocker Alice Cooper, who accepted his induction with a boa constrictor around his neck, and gravelly-voiced Tom Waits, who affected a lackadaisical tone ("Songs are really just interesting things to be doing with the air"). New Orleans legend Dr. John confided that piano wasn't even his original instrument, and former girl-group vocalist Darlene Love softened the boys'-night-out feel. Art Rupe, who helped launch Little Richard, Elektra Records founder Jac Holzman and keyboardist Leon Russell were also inducted. But in the end, it was Cooper (and his snake) who stole the show. -- JOSH SANBURN



work with. sav that Tom Waits, at the Hall of Fame ceremony

D.L. Cox L. Cox, field marshal

On Jan. 14, 1970, Donald

for the Black Panthers. appeared at a fundraiser in Leonard Bernstein's Park

Avenue apartment. The **New York Philharmonic** conductor welcomed Cox and 80 others to raise legal-defense funds for the New York Panther 21. a group that had been indicted on charges of plotting to kill New York City police officers and bomb several locations. The bizarre meeting. **Immortalized by Tom Wolfe** in his article "Radical Chic: That Party at Lenny's," gave Cox brief notoriety and helped achieve an acquittal for the accused Panthers. For a time, Cox, who died Feb. 19 at 74, was prominent in black radical politics. But that fame was cut short when he fled to Algeria, home of the Black Panther international headquarters, in the early '70s after being charged with conspiracy in the murder of a Panther turned informant. He eventually moved to France, where he



died in exile. - J.S.

APPEARED William Lynn, of the

Archdiocese of Philadelphia, in court: he is considered the first ranking church official charged with protecting sexually abusive priests.

WOUNDED Ibrahim Tatlises a popular Turkish

singer and actor. Shot in the head by unknown assallants, he was hospitalized and was in critical condition.

FIRED **Actor Gilbert**

Gottfried as the voice of the Aflac duck, over tweets mocking Japan's quake victime

DIED Owsley "Bear"

Stanley, 1960s counterculture icon who produced over a million doses of LSD and sold them to Jimi Hendrix and the Grateful Dead. among others.

SENTENCED Five Somali men, by a federal judge, to

life in prison for participating in piracy and related offenses as part of last year's attack on a U.S. warship in the Indian Ocean

RELEASED Raymond Davis, a

CIA contractor, who killed two Pakistani men. after \$1.4 million was paid in compensation to the victims' families

Donny George, Iraqi

archaeologist who tried to prevent looting at the Iraq National Museum during the 2003 U.S. invasion and later recovered thousands of items.



"I've been taking an antidepressant, but my depression was still creeping up on me."

If you've been on an antidepressant for at least 6 weeks and are still struggling with depression, having ABILIFY added to your antidepressant may help with unresolved symptoms in as early as 1-2 weeks.*

ABILIFY is a prescription medicine used to treat depression in adults as add-on treatment to an antidepressant when an antidepressant alone is not enough.

Important Safety Information

Elderly patients with dementia-related psychosis (eg. an inability to perform daily activities due to increased memory loss) taking ABILIFY have an increased risk of death or stroke. ABILIFY is not approved for treating these patients.

Antidepressants can increase suicidal thoughts and behaviors in children, teens, and young adults. Serious mental illnesses are themselves associated with an increase in the risk of suicide. When taking ABILIFY call your doctor right away if you have new or worsening depression symptoms, unusual changes in behavior, or thoughts of suicide. Patients and their caregivers should be especially observant within the first few months of treatment or after a change in dose. Approved only for adults 18 and over with depression.

- · Call your doctor if you develop very high fever, rigid muscles, shaking, confusion, sweating, or increased heart rate and blood pressure, as these may be signs of a rare but potentially fatal condition called neuroleptic malignant syndrome (NMS)
- . If you develop uncontrollable facial or body movements, call your doctor, as these may be signs of tardive dyskinesia (TD). TD may become permanent and the risk of TD may increase with the length of treatment and the overall dose. While TD can develop after taking the medicine at low doses for short periods, this is much less common. There is no known treatment for TD, but it may go away partially or completely if the medicine is stopped
- . If you have diabetes or have risk factors or symptoms of diabetes, your blood sugar should be monitored. High blood sugar has been reported with ABILIFY and medicines like it. In some cases, extreme high blood sugar can lead to coma or death

. Other risks may include lightheadedness upon standing, decreases in white blood cells (which can be serious), seizures, trouble swallowing, or impairment in judgment or motor skills. Until you know how ABILIFY affects you, you should not drive or operate machinery The common side effects in adults in clinical trials (≥10%) include nausea, vomiting, constipation, headache, dizziness, an inner sense of restlessness or need to move (akathisia), anxiety, and insomnia. Tell your doctor about all the medicines you're taking, since there are some risks for drug interactions. You should avoid alcohol while taking ABILIFY.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

Please read the additional Important Information about ABILIFY on the adjacent page.



Ask your doctor about the option of adding ABILIFY. Register for a free ABILIFY offer at ABILIFYfreeOffer.com.

*Based on 6-week clinical studies comparing ABILIFY + antidepressant versus antidepressant alone. PPA



R ONLY ABILIFY® (a BIL i fi) (aripiprazole)

This summary of the Medication Guide contains risk and safety information for patients about ABILIFY. This summary does not include all information about ABILIFY and is not meant to take the place of discussions with your healthcare professional about your treatment. Please read this important information carefully before you start taking ABILIFY and discuss any questions about ABILIFY with your healthcare professional

What is the most important information I should know about ARILIFY?

Serious side effects may happen when you take ABILIFY, including

- · Increased risk of death in elderly patients with dementia-related psychosis:
- Medicines like ABILIFY can raise the risk of death in elderly people who have lost touch with reality (psychosis) due to confusion and memory loss (dementia). ABILIFY is not approved for the treatment of patients with dementia-related psychosis
- · Risk of suicidal thoughts or actions: Antidepressant medicines, depression and other serious mental illnesses, and suicidal thoughts or actions:
- Antidepressant medicines may increase suicidal thoughts or actions in some children, teenagers, and young adults within the first few months of treatment. Depression and other serious mental illnesses are the most important causes of suicidal thoughts and actions. Some people may have a particularly high risk of having suicidal thoughts or actions including people who have (or have a family history of) bipolar illness (also called manic-depressive illness) or suicidal thoughts or actions.

How can I watch for and try to prevent suicidal thoughts and actions in myself or a family member?

- · Pay close attention to any changes, especially sudden changes, in mood, behaviors, thoughts, or feelings, This is very important when an antidepressant medicine is
- started or when the dose is changed. . Call the healthcare provider right away to report new or
- sudden changes in mood, behavior, thoughts, or feelings. . Keep all follow-up visits with the healthcare provider as scheduled. Call the healthcare provider between visits as needed, especially if you have concerns about symptoms.

Call a healthcare provider right away if you or your family member has any of the following symptoms, especially if they are new, worse, or worry you:

. thoughts about suicide or dying, attempts to commit suicide, new or worse depression, new or worse anxiety, feeling very agitated or restless, panic attacks, trouble sleeping (insomnia), new or worse irritability, acting aggressive, being angry, or violent, acting on dangerous impulses, an extreme increase in activity and talking (mania), other unusual changes in behavior or mood.

What else do I need to know about antidepressant medicines?

- · Never stop an antidepressant medicine without first talking to a healthcare provider. Stopping an antidepressant medicine suddenly can cause other symptoms
- · Antidepressants are medicines used to treat depression and other illnesses. It is important to discuss all the risks of treating depression and also the risks of not treating it. Patients and their families or other caregivers should discuss all treatment choices with the healthcare provider, not just the use of antidepressants
- · Antidepressant medicines have other side effects. Talk to the healthcare provider about the side effects of the
- medicine prescribed for you or your family member · Antidepressant medicines can interact with other medicines. Know all of the medicines that you or your family member takes. Keep a list of all medicines to show the healthcare provider. Do not start new medicines without first checking with your healthcare provider.

. Not all antidepressant medicines prescribed for children are FDA approved for use in children. Talk to your child's healthcare provider for more information.

What is ABILIFY (aripiprazole)?

- ABILIFY is a prescription medicine used to treat: · major depressive disorder in adults, as an add-on treatment to an antidepressant medicine when you do not
- get better with an antidepressant alone. The symptoms of major depressive disorder (MDD) include feeling of sadness and emptiness, loss of interest in activities that you once enjoyed and loss of energy, problems focusing and making decisions, feeling of worthlessness or guilt, changes in sleep or eating patterns, and thoughts of death or suicide.

What should I tell my healthcare provider before taking ABILIFY?

- Before taking ABILIFY, tell your healthcare provider if you have or had:
- · diabetes or high blood sugar in you or your family; your healthcare provider should check your blood sugar before you start ABILIFY and also during therapy.
- · seizures (convulsions) · low or high blood pressure.
- · heart problems or stroke.
- · pregnancy or plans to become pregnant. It is not known if ABILIFY will harm your unborn baby. . breast-feeding or plans to breast-feed. It is not known if
- ABILIFY will pass into your breast milk. You and your healthcare provider should decide if you will take ABILIFY or breast-feed. You should not do both. . low white blood cell count.
- · phenylketonuria. ABILIFY DISCMELT Orally Disintegrating Tablets contain phenylalanine.

· any other medical conditions

Tell your healthcare provider about all the medicines that you take or recently have taken, including prescription medicines, non-prescription medicines, herbal supplements, and vitamins

ABILIFY and other medicines may affect each other causing possible serious side effects. ABILIFY may affect the way other medicines work, and other medicines may affect how ARILIFY works.

Your healthcare provider can tell you if it is safe to take ABILIFY with your other medicines. Do not start or stop any medicines while taking ABILIFY without talking to your healthcare provider first. Know the medicines you take. Keep a list of your medicines to show your healthcare provider and pharmacist when you get a new medicine.

How should I take ABILIFY?

- . Take ABILIFY exactly as your healthcare provider tells you to take it. Do not change the dose or stop taking ABILIFY yourself.
- . ABILIFY can be taken with or without food. · ABILIFY tablets should be swallowed whole.
- . If you miss a dose of ABILIFY, take the missed dose as soon as you remember. If it is almost time for the next dose, just skip the missed dose and take your next dose at the regular time. Do not take two doses of ABILIFY at the same time
- If you take too much ABILIFY, call your healthcare provider or poison control center at 1-800-222-1222 right away, or go to the nearest hospital emergency room.

What should I avoid while taking ABILIFY? . Do not drive, operate heavy machinery, or do other

- dangerous activities until you know how ABILIFY affects you. ABILIFY may make you drowsy.
- . Do not drink alcohol while taking ABILIFY.
- · Avoid getting over-heated or dehydrated.
- . Do not over-exercise. . In hot weather, stay inside in a cool place if possible . Stay out of the sun. Do not wear too much or heavy
- clothing . Drink plenty of water.

What are the possible side effects of ABILIFY (aripiprazole)?

Serious side effects have been reported with ABILIFY including:

- · Neuroleptic malignant syndrome (NMS): Tell your healthcare provider right away if you have some or all of the following symptoms: high fever, stiff muscles, confusion, sweating, changes in pulse, heart rate, and blood pressure. These may be symptoms of a rare and serious condition that can lead to death. Call your healthcare provider right
- away if you have any of these symptoms. · High blood sugar (hyperglycemia): Increases in blood sugar can happen in some people who take ABILIFY. Extremely high blood sugar can lead to coma or death. If you have diabetes or risk factors for diabetes (such as being overweight or a family history of diabetes), your healthcare provider should check your blood sugar before you start ABILIFY and during therapy.

Call your healthcare provider if you have any of these symptoms of high blood sugar while taking ABILIFY:

- . feel very thirsty, need to urinate more than usual, feel very hungry, feel weak or tired, feel sick to your stomach, feel confused, or your breath smells fruity.
- Difficulty swallowing: may lead to aspiration and choking. . Tardive dyskinesia: Call your healthcare provider about any movements you cannot control in your face, tongue, or other body parts. These may be signs of a serious condition. Tardive dyskinesia may not go away, even if you stop taking ABILIFY. Tardive dyskinesia may also start after you stop taking ABILIFY.
- · Orthostatic hypotension (decreased blood pressure): lightheadedness or fainting when rising too quickly from a
- sitting or lying position. . Low white blood cell count

· Seizures (convulsions)

- Common side effects with ABILIFY in adults include nausea, inner sense of restlessness/need to move (akathisia), vomiting, anxiety, constipation, insomnia, headache, restlessness, dizziness.
- These are not all the possible side effects of ABILIFY. For more information, ask your healthcare provider or pharmacist. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

General information about ABILIFY

- . Store ABILIFY at room temperature, between 59°F to 86°F. Opened bottles of ABILIFY Oral Solution can be used for up to 6 months after opening, but not beyond the expiration date on the bottle. Keep ABILIFY and all medicines out of the reach of children.
- · Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use ABILIFY for a condition for which it was not prescribed. Do not give ABILIFY to other people, even if they have the same condition. It may harm them.
- . This summary contains the most important information about ABILIFY. If you would like more information, talk with your healthcare provider. For more information about ABILIFY visit www.abilifv.com.

Tablets manufactured by Otsuka Pharmaceutical Co, Ltd, Tokyo, 101-8535 Japan or Bristol-Myers Squibb Company, Princeton, NJ 08543 USA

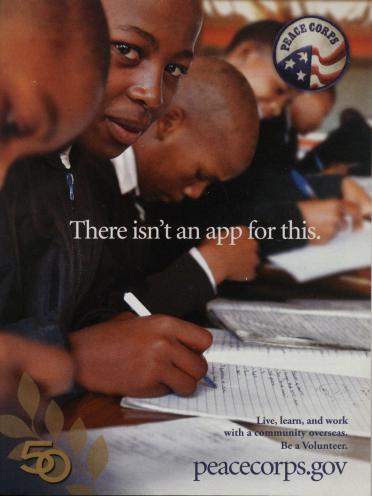
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FASY TO REACH

Samsung likes everything about Las Vegas, including its focus on technologies that save on electricity.

Gadget lovers who flew into Las Vegas in January for the giant Consumer Electronics Show got a chance to gawk at the city's newest, most impressive technology while riding the escalator on their way to claim their bags. Samsung Electronics greeted them with the largest video wall at any U.S. airport—a spectacular 627 square feet of cutting-edge, high-definition display engineering.

Why all the flash and glitter? "Because," says Doug Albregts, vice president for sales and marketing at Samsung Enterprise Business Division, "there's not a town in the world that embraces technology the way Las Vegas does—especially during that fabulous week in January, when technology's best and newest products go on display at the CES."

Samsung shows its wares at countless trade events throughout the world but makes Las Vegas its premier U.S. showcase. The company stakes out nearly 30,000 square feet of space on the CES floor. Samsung also holds center stage at numerous, more specialized Las Vegas trade shows and dealer events throughout the year, like Digital Signage Expo and InfoComm, where it has launched such breakthrough products as the world's first LED-backlit displays for commercial use and glasses-less 3-D displays.

"Las Vegas is just right for us," says Albregts, not only because of its unbeatable conference facilities and luxurious accommodations, but also because of many other attractions-including nearby skiing and rock climbing, wonderful sights such as the Hoover Dam and many of the finest restaurants in America. Those are key reasons, Albregts believes, why the acceptance rate among Samsung customers and partners averages 85% to 95% for Las Vegas events compared with about 50% for other meeting locations. In addition, Samsung likes the city's focus on green technologies that save on electricity and minimize hazardous waste. "That's a focus for Samsung, too," he notes, "so it fits us to a T."

Trade show organizers and exhibitors like Samsung have voted for Lav Vegas as North America's top meeting and convention site for 16 straighty years. This year, the city will host some 19,000 meetings, conventions and incentive programs, ranging in size from 10 to more than 100,000 attendees. With more than 10.5 million square feet of exhibit space and almost 150,000 hotel rooms, Las Vegas hosts more of the largest trade shows than the next two top versues combined.

Those hotel rooms are the most affactable at any major destination, and Las Vegas' tax structure makes it an even better value. It's also among the easiest destinations to reach. McCarran International Airport, with more than 900 flights daily, offers nonstop service to more than 130 offers.

"Las Vegas is a very easy place for us to do business", says Samsung's Albregts. What matters most, though, is the impression that partners and customers take with them on the flight home. Says Albregts: "Samsung is dedicated to providing our customers with innovative and quality products backed by unbeatable service. Exciting new products are essential to our work, as is staging them in the most exciting and appealing meeting venue. That's Las Vegas." @

I DON'T NEED A "VINGMAN," I'M A

If you don't think Vegas is a serious place for business, then you're missing out. We host more than 19,000 meetings, conventions and tradeshows every year. And when you compare us to other cities, you'll find we're one of the best values out there. In fact, you'll find some of the most affordable rates ever this spring. So get the facts. Learn why so many of the Fortune 500° companies choose Las Vegas at VegasMeansBusiness.com.

Vegas



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To read Joe's blog posts, go to time.com/

Washington's Policy Sandstorm

Libya doesn't matter as much as finding jobs for the young protesters in Egypt

JAPANESE TSUNAMI SWEPT THE Libyan civil war out of the news, just as the violence in Libya swept the far more consequential Egyptian revolution out of the news before it. That's how we roll in the mainstream media. There is an incessant tide of undifferentiated cataclysms: we rush to the sound of the guns and the natural disasters, especially if there are pictures. But all bangbang is not equal. There are times, as in the case of Libva, when gunfire obscures more important news. Before the historic Japanese catastrophe changed the cablenews conversation, Libya was careering toward an American overreaction.

The peripheral importance of Libya was bloated by several factors-the passions in the streets seemed every bit as vital on television as those in Egypt; Muammar Gaddafi, in full flagrance, demanded the sort of unwarranted attention that a fender bender on the other side of the highway does-but the contending forces were rival tribes, about which we knew little, Barack Obama foolishly raised the stakes by saying the dictator had to go, which in turn led to daily media pressure: Why is he still there? What are you doing about it? Won't it be embarrassing if he won't go? What credibility will the American President have then? And the media spotlight was quickly filled by the President's opponents, who see every moment of hesitant policymaking as a sign of weakness rather than prudence.

All of this combined to create a policy sandstorm that obfuscated the truly astonishing events taking place in the Middle East—and where the Administration's real interests should lie. "What happens in Libya stays in Libya," a Middle Eastern diplomat told me. "What happens in Egypt affects the entire region."

The constant National Security Council meetings about Libya, the discussions at the U.N. and NATO and the Arab League were all a diversion—as was the prospect of spending billions on (yet another) military campaign in an Islamic country, which would have far less lasting impact than spending those same billions on a well-planned and coordinated development program for the countries in the region with the largest influence



and population, starting with Egypt.
The revolution in Egypt isn't over. It

has barely begun. The military is in power, as it has been, essentially, for the past 60 years. And a crisis is coming, a classic crisis of rising expectations. What happens three months from now when life hasn't changed in any appreciable way for the hundreds of thousands of young people who took to the streets in Cairo? More than 60% of the population in Egypt is under the age of 50; those demographics are common in the region. An estimated ac% are unemploved.

These are the sort of calculations that caused President Obama to call National Security Council staffers Dennis Ross, Samantha Power and Gayle Smith into his office last summer. "He had his doubts that the Middle East status quo was sustainable," said one of those at the meeting. "He wanted us to come up with a long-term policy. He said, 'Don't avoid the hard questions.' Believe it or not, we finished our report the week that Tunisia exploded." The report concluded that the U.S. should support movements that called for peaceful reform and oppose any violence directed against those movements. This was a position guaranteed to offend some longtime Middle Eastern allies, like Saudi Arabia, but it is the policy that Obama has essentially followed. The rush of revolutions has created sticky short-term security questions, as in Libva. but the Obama study left one crucial

> question unanswered: Is there anything that can be done, quickly, to put the young people in Tahrir Square, and elsewhere in the region, to work?

The Obama Administration is

studying various ways to help but is constrained by a lack of foreign aid money and the lugubrious reality of economic reform. There is an alphabet soup of sleepy international agencies that have traditionally been boggled by the Middle East's inability to create a thriving economy outside the oil business.

There is talk of free-trade zones and seed money for small businesses. A better idea, bubbling up from the Gulf, would be to establish a Middle East Infrastructure Bank—pushed hard by the U.S. and funded by the lush sovereign wealth funds run by oil-rich countries in the region, as well as China and Europe-to move quickly toward paving roads and building housing, followed by larger projects like power plants. The cost to the U.S. might be about the same as two weeks of the Afghan war for the next 10 years. But something must be done, and soon, lest Tahrir Square fill again, six months from now, with protesters who are far less peaceful-and their radicalism catch fire across the Middle East.

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It starts as rain and snow that soaks into the earth. Then it trickles from one layer to the next where it's filtered naturally – the way nature has always done it. Along the way, it collects a unique balance of minerals that gives it a distinct crisp taste.

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These sources mean everything to us, so we go to great lengths to help ensure nothing upsets their natural balance. For starters, all of our sources teplenish themselves naturally and we constantly monitor them.

so we never take more than nature provides. That means people will be able to enjoy Deet Park for generations to come.

Polyethylene Terephitaalate Bisphenol A Based on a 2009 national audit of half-liter plastic bottles Ouanits Beverage Lifecyclo NAPCOR 2008 Report on Postconsumer PET

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Every time you drink Deer Park, it tastes just like it did when we found it. That's because we seal every drop in specially designed bottles. They lock the crisp taste inside and allow us to guarantee pure quality from the source to you — every time. All of the

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Associates (2010). Final Report: Life Cycle Inventory of 100% Postconsumer HDPE and PET Recycled Resin from Postconsumer Containers and Packaging. And US Environmental Protection Agency Greenhouse Gas Equivalencies Calculator, March 2010 ALZHEIMER'S DISEASE COSTS AMERICANS BILLION ANNUALLY.

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alzheimer's R

Bill Saporito



The Market's Disaster Drill

The sell-off after the Japan quake is logical, painful—and destined to be a nonevent

ARKETS CAN BE MERCILESS, bloodlessly processing available information to price assets appropriately. In the aftermath of Japan's triple disaster—an incomprehensible oo earth-quake, an incredible tsunami that killed thousands and the resulting damage at the Fukushima Daiichi nuclear works—its stock market fell more than 14% fore regaining some ground on March 16. A massive loss of wealth attended a grievoul Soss of life.

With Japan facing short-term damage to its economy, all Japan-related assets have been written down. Fidelity's Japan fund, for instance, tumbled 7%. The economic recovery had already been losing momentum.

Japan's GDP contracted in the final quarter of 2010. The blow from the quake threatens to toss the country back into recession—or shave perhaps 0.5% from GDP growth, according to Bank of America Merrill Lynch. Some of Japan's powershort, logistics-constrained industries have had to shut down temporarily.

As the Fukushima Daiichi disaster

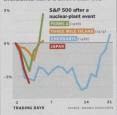
worsened, the world's stock markets fell in anticipation of the wider economic consequences. The price of companies attached to the nuclear industry suffered damage, including Shaw Group, a nuclear-engineering specialist, which dropped more than 14% amid investor fears that the industry renaissance that had been taking place in an energyhungry world would re-enter its post-Three Mile Island dark age. So did the price of insurers and reinsurers like Swiss Re, companies designed to take exposure to catastrophic losses. "Japan is dealing with a real situation, and the rest of the world is placing a risk premium on any assets related to it," says Milton

Ezrati, Lord Abbett's senior economist and a Japan expert.

Ezrati was reluctant, understandably so, to verbalize another point. "You hesitate to call it—" he hesitated. Let's not. Japan's disaster will certainly create a buying opportunity. Some even see it as a catalyst for the country to finally deal with its economic ennui. Leading to a growth spurt in 2012.

Destruction on such a massive scale, while locally chaotic and disruptive, gen-

Fallout. Market reactions to incidents have a short half-life



erally doesn't have a lasting effect on global order. In the first week after the Sept. 1r terrorist attacks, the S&P 500 fell more than 5%. But within is its months the index had gained it all back and then some Three Mile Island, the charter nuclear disaster, was a nonevent in the market, Chernohyly's 5% first week loss was short-lived, unlike the damage, which will last hundreds of years at the source. On a completely different scale, the Indian Ocean earthquake and tsunami of 2004 killed 230,000 people, a staggering human toll, which the market all but

ignored because lots of poor people died.

Investors often head for the exits when disaster arrives, but not necessarily out of fear. "There's no reason to believe that what we are seeing is overreaction. In a perfectly rational world, investors would pull back from risky situations," says Lubos Pastor, a professor of finance and a specialist in market behavior at the University of Chicago's Booth School of Business. It's hardly a perfectly rational world (that's why we have bubbles), but the earthquake increased uncertainty, which increased volatility, which then demanded lower asset prices as compensation. The value of your portfolio postquake may be lower, but at least it promises a greater return in the future. That's the whole point. "If you take the bottom of the financial crisis, November 2008 or March 2009," says Pastor, "the return was low, but the expectation of reward was high." And that expectation was rewarded when the market took off on a two-year tear.

It's possible that the Japan earthquake got investors to focus again, and they may not like what they're seeing. The event comes at a time when the global recovery is still not assured. Rising oil prices tied to the ongoing crisis in the Middle Eastremember that?-are threatening the U.S. economy with \$5 per gal. (\$1.32 per L) gasoline. More ominously, rising energy prices threaten the loss of as many as 600,000 jobs, because companies could shed labor to offset increased costs. Ironically, the oil threat has receded; since the quake, the price of oil has slid to \$100 per barrel, as Japan's decreasing economic activity will cut demand.

Consider too that had this disaster occurred a year ago, it would have struck the world's second largest economy. Instead, it has struck the third largest, Japan has been mired for two decades; its share of the world GDP has declined by half since the mid-1990s. Last year, China displaced Japan as No. 2. The damage to the global economy is commensurately smaller. The world can absorb it far more easily than Japan can. Investors will figure that out soon.

The Day the SPECIAL REPORT: Japan's cataclysmic earthqu

Upended

the earth from the sky," says photographer James Nachtwey, at the Shishiori River in Kesennuma

Earth Moved

ke set off a chain reaction felt round the world

The 9.0 quake that hit Japan on March II was powerful enough to shift the earth on its axis and make it spin a little faster, shortening the day by I.8 millionths of a second. It shoved the island nation one parking space to the east. But what felt like the end was just the beginning.

The sturdy buildings that survived the quake were ravaged by the wave that followed. The three-story wall of water dissolved coastal towns, dry-docked boats on the roofs of buildings and shuffled houses like playing cards. There were so many aftershocks that people stopped diving under tables. Those who made it safely to higher ground waited in the dark, in the cold, in lines that stretched for hours for water and food. In a society seen as the most stoic on earth, the closest thing to chaos was a man cutting in line.

But still it was not over; only the earth and sea had spoken. The next danger came from the sky. Officials warned people to stay inside and seal whatever was left of their homes be cause the new threat was silent, invisible—and airborne. A rich country perched on four fault lines and with no oil reserves embraces nuclear power with the caution born of long memory and sears. But no one calculated what would happen

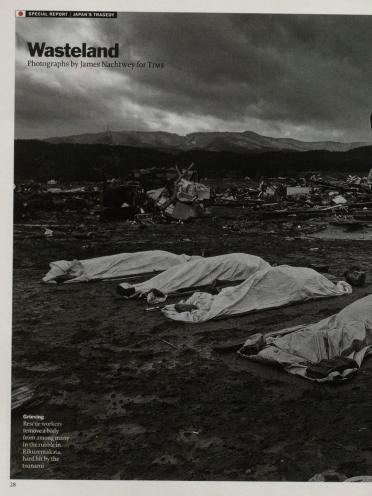
When the quake hit, the reactors at the Fukushima Daiichi complex did exactly what they were supposed to do: they shut down. But then the wave came, breached the seawall, drowned the backup generators needed to cool the reactors and took out the spare batteries. It was left to a skeleton crew of 50 to jury-rig fire hoses to keep the temperatures down.

One by one, the outer buildings exploded. This is also what they were designed to do, to release pressure and protect the core. The best nuclear scientists on the planet raced to avert a a total meltdown even as radioactivity levels as far south as Tokyo spiked to 23 times as high as normal. With the menace growing by the hour, the most fatful calculation came down to the most fickle: Which way is the wind blowing?

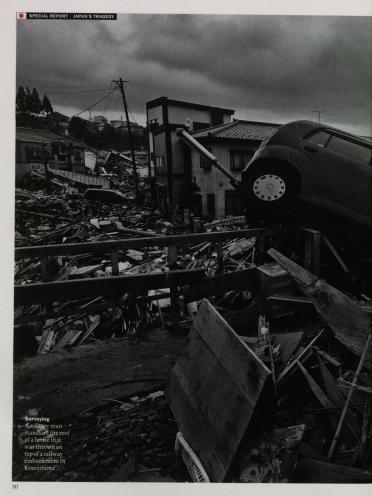
It only started as a natural disaster; the next waves were all man-made, as money fled to higher ground. Fear and uncertainty sheared \$700 billion off the Toyko Stock Exchange in three days. Japan makes nearly a quarter of the world's semiconductors and most of fits gadgets. Sony suspended production at seven plants; carmakers slowed output, fearful of gaps in the supply chain; power companies scheduled rolling blackouts. How can a global recovery take hold if the world's third largest economy is out of business, even temporarily! Meanwhile, Switzerland announced a freeze on new nuclear plants, Germany shut down all its facilities built before 1980, and the U.S. Congress called for hearings on nuclear safety. The flooded Japanese plants will never reopen. But demand for power only grows.

We sleep easy in the soft arms of clichés: hope for the best, prepare for the worst; risk varies inversely with knowledge; it's a waste of time to think about the unthinkable. But Japan shook those soothing assumptions. No amount of planning, no skills or specs or spreadsheets, can stop a force that moves the planet.—ANACY CIBBS

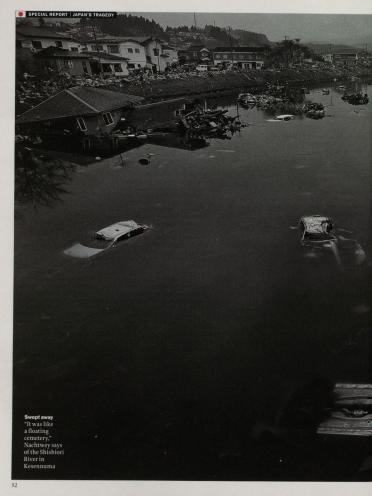
















Fear Goes Nuclear

The crisis at Japan's crippled power plant has yet to play itself out. Human lives, global wealth and the future of energy ride on the outcome

BY JEFFREY KLUGER

ERE'S THE WORST-CASE SCEnario: sometime soon, work-Daiichi nuclear plant will water into the cores of the wrecked reactors fast enough to keep up with the steady heating. The temperature in the core will exceed 5,000°F (2,760°C), causing hundreds of uranium fuel rods to slump to the bottom of the containment vessel like melted wax. The fuel will burn through the foundation of the plant, sinking into the ground and contaminating the water table. Pressure in the cores will climb high enough that the vaultlike vessels will no longer be able to withstand it. Before long they will erupt in a radioactive cataclysm, spreading a deadly, carcinogenic cloud across Japan and-depending on the whims of the wind-around the world.

Here's the much better-case scenario: those same workers will soon get ahead of the heating curve, adding cool seawater to the reactors at the same time as the fuel rods' natural decay causes them to lose heat by themselves. Some people exposed to diation will get sick; some workers may die. The radioactive plumes will dissipate; the plant will be shut down; the exacuses will go home. You don't need to stock up on iodine pills or cannel goods or betteries.

It's still too early to say whether the bright yin or the dark yang will be closer to how the Fukushima drama unfolds, and true clarity may not come for a long time yet. What is certain is that whatever happens, we all need to start thinking very hard about how we got into this mess and how we can prevent it from ever happening again.

Death by radiation has always been humanity's great self-inflicted wound. Nature may have cooked up the unstable elements that contain and mein radioactive energy, but it also took care to hide the stuff away burying it in mountains, sealing it in planetary cores. Humans had to work ever hard to pick that natural lock. It wasn't until the past seven decades that we understood the elemental energy of radioactive rocks well enough to distill it into pellets, rods and lumps and, in our first demonstration of our newfound power, use it to incinerate two

Japan is suffering once more, and we are again left to examine the wisdom of having ever let the radioactive genie out of the bottle—and at just the time that nuclear power had been experiencing a bit of public redemption. As the world struggles with the realities of climate change and the political and fiscal costs of our dependency on fossil fuels, many have accepted that nuclear power must be part of any sensible energy mix.

But that was before Pukushima: before the rolling explosions of nuclear-reactor containment buildings; before the everexpanding danger zone, which started at 3 km (1.9 miles) and by March 1; stood at 30 km (1.86 miles); before tens of thousands of people were displaced and 140,000 more were urged to stay sealed inside their homes. When a government official like Chief Cabinet Secretary Yukio Edano starts speaking gobbledyook like "At this point we can say we are moving in the direction of stabilizing the situation in a certain managed manner," you can be pretty sure he's not stabilizing anything, And when what's not being stabilized is radioactivity, even the wisest heads start to get spooked. "This is extremely scary," says physicist Kenneth Bergeron, a former research scientist for Sandia National Laboratories in Albuquerque, NM, who specialized in reactor accidents. "Itwas not at all inevitable that it had to play out like this."

Rewriting the Book

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"This is rewriting the book on nuclear accidents," says physicist Arjun Makhijani, president of the Institute for Energy and Environmental Research in Takoma Park, Md. "It's a combination of earthquake and tsunami causing a lot of damage that's emerging only over the course of days."

The crisis at the Daiichi plant is principally a result of flooding, which inundated emergency power systems and made it impossible to pump needed cooling water to the fuel rods in the reactors, Paradoxically, too much water where they didn't want it resulted in too little where they did. So why didn't the Japanese prepare?

Actually, they did. About 40% of Japan's coastline is protected by seawalls, but near Fukushima, the 33 ft. (10 m) tsunami-a very big one-easily overtopped them. Still, simply because the region flooded didn't mean the diesel-powered generators had to be swamped. Situating them above the waterline could have kept them running. But since the designers assumed the seawall would be sufficient, they put the diesels on the ground floor of the plant. The quake caused grid power to be lost, and within an hour, the generators sputtered to a stop too. "The plant was supposed to have redundant systems to prevent this," says Bergeron. "But if you have four diesels on site and they can all be wiped out at once, that's not real redundancy."

A power-plant blackout is something safety experts train hardest for-and dread the most-because even the best nuclear reactors operate on a thermal knife edge. Each of the six reactors at the Daiichi plant consists of 400 to 760 fuel rods about 14 ft. (4.3 m) in length. They are housed inside a bell jar-like steel and concrete containment vessel, which is protected by a larger, bunkerlike building. Even with coolant constantly bathing the fuel rods, the temperature inside the vessels stays above 500°F (260°C). When the diesels died, the coolant pumps guit. In less than a day, the temperature rose above 2,200°F(1,200°C). That caused the vessels to vent hydrogen, which filled the buildings and led to their sequential explosions: Reactor 1 the day after the quake, Reactor 3 two days later, Reactor 2 the day after that. Reactors 4, 5 and 6 were offline when the quake hit. They needed water too, but since they were cooler to start with, they seemed to present no immediate problem.

Despite all this, Fukushima is no Chernobyl-at least not yet. Chernobyl had no containment vessels, which means that once the external building blew, the radioactive plume blasted out everywhere. What's more, the Chernobyl plant was also used to process plutonium for weapons, making it more susceptible to what nuclear engineers

DEACTOR.

call "neutronic excursion" and what other people call "explosions." Finally, in the moments preceding the Chernobyl accident, operators were, ironically, testing a new safety protocol that spun out of control. "Basically," says Bergeron straightforwardly, "you had idiots running the plant."

But within three days of the quake, the Japanese were starting to look less than brilliant themselves-as was General Electric, the American vendor that designed and built the Daijchi reactors. The Mark 1, the GE model that was popular in 1971, when the plant went into service, has been criticized for having less robust containment vessels than other plants of that era.

That may be so, but its more immediate shortcoming is a design feature it shares with other older reactors. In all those systems, spent fuel rods are stored in a pool inside the concrete reactor building for at least 10 years before being transferred to long-term storage. As long as water circulates constantly, the pools remain stable. But when power is lost, the circulation stops. And when the roof blows off, the pools are

Exposure Meter

A millisievert is a unit that measures the biological risk of exposure to radiation. Acute radiation sickness begins at 1,000 millisieverts

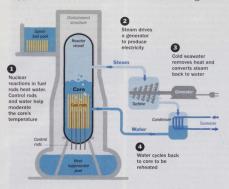
MILLISIEVERTS

COMPARED WITH AMERICANS'

Living in a

Chest X-ray Cosmic radiation at sea level

Inside the Reactor. How a boiling-water reactor is supposed to work—and how it can become dangerous



WHAT WENT WRONG AT FUKUSHIMA DAIICHI

OVERHEATING
Without power,
the cooling
system could
not bring down
the cores'
temperature

EXPLOSIONS
Blasts damaged the suppression pool in Reactor 2 and the containment-building roofs of Reactors 1, 3 and 4

PARTIAL MELTDOWN The exposed fuel rods may be cracking and melting

WORST CASE

Molten fuel could burn through the containment, or spent fuel could ignite, releasing radiation

ource: Nuclear Energy Institute

exposed to the air. Add the heat generated by the rods, and the water starts to boil away." If you don't cool the spent fuel, there may be a swift chain reaction that leads to spontaneous combustion, an explosion and fire," says research scientist Ferenc Dalnoki Veress of the James Martin Center for Nonproliferation Studies in Monterey, Calif.

A fire just like that began on March 15, but to the surprise of engineers, it started in Reactor 4, which had not been in operation. The fire crept up quietly because the cooling pool is 45 ft. (14 m) deep but the rods were stored in the bottom 15 ft. (4.8 m), meaning 30 ft. (5.6 m) off wath had to bubble away first. The building remained intact as the fire raged, but the radioactivity spewing from it was what led to the last expansion of the danger that same day. Emergency workers were able to extinguish the blaze, but the alarm prompted Prime Minister Naoto Kan to take to the alivaves and appeal for calm while admitting there was "a further risk of more radioactive material coming out."

There was still more bad news. Engi-

neers concluded that the explosions of the reactor buildings breached the containment vessels in Reactors 1 and 3, as well as the torus—an enclosed doughnut of water around the base of the vessel—in Reactor 2. Not good—'Iff the primary containment vesels is leaking, then a core meltdown could lead to a very high release of radioactivty into the environment," say physicist David Wright, co-director of the U.S.-based Union of Concerned Scientists.

Too Much for Comfort

MELTDOWNS, IN THE SENSE OF OVERHEATed fuel starting to soften and sink, are almost certainly under way in all three of the previously active reactors. The 50 workers left at the plant-who on March 16 were joined by 130 more—are fighting to prevent things from getting worse by pumping seawater mixed with boron through fire hoses into release valves in the containment vessels. Boron helps absorb neutrons, reducing radioactivity, and the seawater performs the cooling. The race is to bring the temperature under control before the fuel simply pools on the vessel's floor, reducing the surface area that can be reached by the water. That would make it impossible to lower the temperature, which by then would be above 3,500°F (1,900°C). Ultimately, the fuel could simply burn through the floor and contaminate the ground and water table below. Rising heat and pressure could also cause the containment vessel to rupture. All that is still a possibility, but Bergeron sees some small cause for optimism. "They've had several days, and that's certainly an advantage," he says. "Every day is one more day in the decay curve of the heat. They start to need less and less water to do the cooling."

This small comfort is offset by the fact that as the reactors seem to pose a slightly smaller risk, the coolant pool problem may be worsening. At a congressional hearing on March 16, Nuclear Regulatory Commission chairman Gregory Jaczko testified that he believes all the water in the Reactor 4 pool has boiled away. That would lead to massive gamma radiation output.

"The dose rates are probably off the charts if the pool is drained," says Robert Alvarez, a former senior policy adviser at

Radon in the home

Average American's dose 10 1.6x Between reactors at Fukushima Daiichi
400
65x

Firefighters at Chernobyl in 1986
16,000
2,580x

Sources: American Nuclear Society; U.S. Nuclear Regulat Commission; IAEA the Department of Energy. "These pools have become the jokers in the deck." All the more so because each of the Fukushima reactors-damaged or not-has one. In response to this latest development, the U.S. embassy recommended that Americans in the vicinity observe a so-mile (80 km) evacuation zone. Alvarez would go further. "I'd get my butt on an airplane and get out of Japan," he says.

Even if the radiation is quickly contained, there's already been too much for most people's comfort. Radiation levels are measured in rems-for "roentgen equivalent man." The average background exposure that most people absorb simply by living on earth is 2.4 millisieverts (mSv, or one-thousandth of a rem) per year, "It could account for some of the cases of cancer that appear in the general population that have no other evident causes, like smoking," says Dr. Ira Helfand, a board member at Physicians for Social Responsibility. Medical procedures carry their own radiation load. A CT scan, for example, can expose you to about 10 mSv. In most cases, though, the benefits exceed the dangers.

What harm any radiation causes depends on which elements are involved in the exposure. There are four kinds of isotopes that are the likeliest, from a public-health perspective, to be a danger if emitted by a nuclear power plant: iodine-131, cesium-137, strontium-90 and plutonium-239. Exposure to iodine-131 can lead to cancer—specifically thyroid cancer-and it can happen comparatively fast. Epidemiologists estimate that

after the Chernobyl explosion, there were 6,000 to 7,000 cases of thyroid cancer that would not otherwise have occurred.

Strontium and cesium are not nearly so selective. "Strontium gets incorporated into bones and teeth," says Helfand, "and can stay there, irradiating the body for a long time." Strontium is most commonly linked to leukemia. Cesium behaves more like potassium when it's inside the body, which means it circulates everywhere. It doesn't linger as long as strontium does, but it stays long enough to cause cancer of the liver, kidnevs, pancreas and more. Most toxic of all is plutonium, which is typically inhaled and likeliest to lead to lung cancer.

Not surprisingly, fears of such outcomes have led to overreaction. In the same way people stocked up on the antibiotic Cipro during the anthrax attacks of 2001, so they are now buying iodine pills. That's indeed a hedge against thyroid cancer, since there is a limit to how much of any type of iodine the body can absorb. Filling up on the nonradioactive kind shuts out the kind a power plant emits. But taking iodine can be dangerous if you don't know the right dose, and it's just silly to bother until you have a real sense of what the danger is,

Workers at the Fukushima plant, of course, are more at risk than the rest of us. On March 16, the radiation level between two reactor buildings was measured at 400 mSv per hour, a dose equivalent to undergoing 2,000 chest X-rays in the same period, according to the International Atomic Energy Agency. There have been no reports of what the levels have become if Coolant Pool 4 is indeed dry. The Japanese authorities are not revealing much about how they're protecting the workers. They are surely wearing full bodysuits that protect them from particles and carrving dosimeters that let them know when they've reached a dangerous dose of radiation. The work is not a death sentence, but for some of them, it might be close.

"The helicopter pilots who dumped sand on the burning core at Chernobyl knew they were going to die, and they did die," says Shan Nair, a British nuclear-safety expert who was part of a panel that advised the European Commission on its response to that disaster. "We don't know what the radiation levels are inside the plant. Reports of a 400-mSv figure suggest that it's not a suicide mission, [but] it is still a risky operation." Bergeron disagrees. "I think some of them will be sacrificed," he says. "These are heroic actions, but it's going to be a real challenge to keep some of these people alive.'

As the fuel rods inside the ruined plant cool-assuming they do-tempers and panic will follow suit. It's a hard truth that we have tied ourselves to nuclear power for years to come. In the short term, higher seawalls and more prudently placed diesels will help prevent a repeat of the current emergency. Future nuclear plants can include what are known as passive safety systems. Reactors could be immersed in water at all times, for example. In the event of an accident, the vessel could be opened to allow coolant to circulate on its own. The rub is cost. Passive controls and other modifications like sturdier design are expensive, and the only way the nuclear industry can compete with coal and oil is to not include too many bells and whistles-like extra safety systems-on reactors. One answer, of course, is to tax carbon, raising its cost to make alternatives such as wind and solar power competitive with fossil fuels, thus obviating the need for so much nuclear power.

But that possibility brings the discussion full circle to an argument that seems to flare up every time there's a Three Mile Island or a blown BP oil well or a group of 33 Chilean miners who get trapped underground. And it's an argument we'll keep having until the species that was clever enough to tame fire, harness steam and pry unthinkable power from a lump of uranium ore becomes smart enough to take the next step forward. - WITH REPORTING BY EBEN HARRELL/LONDON, BILL POWELL/ TOKYO AND BRYAN WALSH/NEW YORK



Looking for trouble A man living in the danger zone is screened for radiation at a health clinic













The Real Cost of **Nuclear Power**

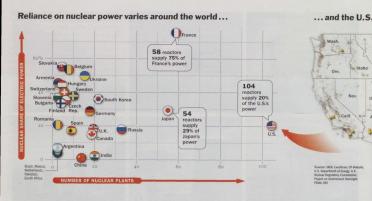
The U.S. atomic revival had stalled long before the Japanese crisis made new reactors radioactive

BY MICHAEL GRUNWALD

HE CHAOS AT THE FUKUSHIMA Daiichi nuclear plantexplosions, fires, ruptureshas not shaken the bipartisan support in partisan Washington for the U.S.'s so-called nuclear renaissance. Republicans have dismissed Japan's crisis as a once-in-a-lifetime fluke. President Obama has defended atomic energy as a carbon-free source of power, resisting calls to halt the renaissance and freeze construction of the U.S.'s first new reactors in over three decades.

But there is no renaissance. Even before the earthquake-tsunami one-two punch, the endlessly hyped U.S. nuclear revival was stumbling, pummeled by skyrocketing costs, stagnant demand and skittish investors, not to mention the defeat of restrictions on carbon that could have mitigated nuclear energy's economic insanity. Obama has offered unprecedented aid to an industry that already enjoyed cradle-to-grave subsidies, and the antispending GOP has clamored for even more largesse. But Wall Street hates nukes as much as K Street loves them, which is why there's no new reactor construction to freeze. Once hailed as "too cheap to meter," nuclear fission turns out to be an outlandishly expensive method of generating juice for our Xboxes. Since 2008, proposed reactors have

been quietly scrapped or suspended in at least nine states-not by safety concerns or hippie sit-ins but by financial realities. Other projects have been delayed as cost estimates have tripled toward \$10 billion a reactor, and ratings agencies have downgraded utilities with atomic ambitions. Nuclear Energy Institute vice president Richard Myers notes that the "unrealistic" renaissance hype has come from the industry's friends, not the industry itself. "Even before this



happened, short-term market conditions were bleak," he tells Time.

Around the world, governments (led by China, with Russia a distant second) are financing 65 new reactors through more explicit nuclear socialism. But private capital still considers atomic energy radioactive, gravitating instead toward natural gas and renewables, whose costs are dropping fast. Nuclear power is expanding only in places where taxpayers and ratepayers can be commelled to foot the bill.

In fact, the economic and safety problems associated with nuclear energy are not unrelated. Trying to avoid flukes like Fukushima Daiichi is remarkably costly. And trying to avoid those costs can lead to flukes.

The False Dawn

IN 1972 A FEDERAL SAFETY REGULATOR, worried that GE's Mark I reactors would fail in an emergency, urged a ban on containment designs that used "pressure suppression." His boss was sympathetic but wrote in a memo that "reversal of this hallowed policy, particularly at this time, could well be the end of nuclear power" and "would generally create more turmoil than I can stand thinking about." Four decades after this bureaucratic pressure suppression, Fukushima

Daiichi's Mark 1 reactors seem to have failed as predicted. And while newer reactors don't have those problems, 23 Mark 1 reactors still operate in the U.S., including a Vermont plant that was relicensed for 20 more years the day before the disaster in Japan.

When Karl Marx, who would have appreciated nuclear economics, wrote that history unfolds first as tragedy, then as farce, he got U.S. nuclear history backward. America's initial experiment was a cartoonish disaster, with construction timelines doubling and costs increasing as much as 1,000% even before the Three Mile Island meltdown. In the 1980s, the industry required bailouts before bailouts were cool. But the U.S. industry has matured and learned from its mistakes. It still runs the world's largest nuclear portfolio, and it hasn't had a serious accident since 1979. Meanwhile, globalwarming fears have positioned nuclear power as a proven alternative to fossil fuels that works even when the sun isn't shining and the wind isn't blowing, producing 20% of our electricity and 0% of our emissions. No-nukes outrage has burned out, with a recent poll registering 71% support.

The result has been an extraordinary political coalition. Right-wingers who don't accept climate science and didn't even want the word french in their fries now wax lyrical about French reactors that reduce French emissions Left-wingers who used to bemoan the industry's radioactive waste and corporate welfare now embrace it as an earth saver. So Congress has approved lucrative subsidies for construction, production, waste disposal, liability insurance and just about every other nuclear cost. It also approved "risk insurance" to compensate utilities for regulatory delays, even as the Nuclear Regulatory Commission (NRC) has worked closely with the industry to streamline its licensing

Even before the earthquake-tsunami, the endlessly hyped U.S. nuclear revival was stumbling, pummeled by skyrocketing costs, stagnant demand and skittish investors

has been slow to expand



3 million
Number of Americans who
live within 10 miles of a
nuclear power plant

26%

Percentage of Americans opposed to using nuclear energy to generate electricity in the U.S.

1996

Year the last new reactor entered commercial service in the U.S.

65

Reactors under construction (more than 40% are in China)

process. And nuke-friendly states have required ratepayers to front the costs of any new construction—even if the reactors are never turned on.

Nevertheless, investors refuse to bet on nukes. The steady increases in electricity demand that were supposed to justify new reactors have been wiped out by the global recession, and energyefficiency advances could keep demand flat. Natural gas prices have plummeted, Congress appears unlikely to put a price on carbon, and the U.S. still lacks a plan for nuclear waste. It also turns out that building safe places to smash atoms is hard, especially after such a long hiatus. The U.S. has lost most of its nuclear manufacturing capacity; it would have to import Japanese steel forgings and other massive components, while training a new generation of nuclear workers. And though industry lobbyists have persuaded the NRC to ease onerous regulations governing everything from fire safety to cooling systems, it's still incredibly tough to get a reactor built.

New nukes would still make sense if they were truly needed to save the planet. But as a Brattle Group paper noted last month, additional reactors "cannot be expected to contribute significantly to U.S. carbon emission reduction goals prior to 2030." By contrast, investments in more-efficient buildings and factories can reduce demand now, at a tenth the cost of new nuclear supply. Replacing carbon-belching coal with cleaner gas, emissions-free wind and even utility-scale solar will also be cheaper and faster than new nukes. It's true that major intusions of intermittent wind and solar power would stress the grid, but that's a reason to upgrade the grid, not to waste time and money on reactors.

Anyway, there aren't many utilities that can carry a nuclear project on their balance sheets, which is why Obama's Energy Department, a year after awarding its first § billion loan guarantee in Georgia, is still sitting on an additional sto billion. A Maryland project evaporated before closing, and a Texas project fell apart when costs spiraled and a local utility withdrew. The deal was supposed to be slavaged with financing from a foreign utility, but that now seems unlikely.

The utility was Tokyo Electric.

Another Perfect Storm

PUNDITS KEEP SAYING THE MESS IN JAPAN will change the debate in the U.S., but the BP and Massey disasters didn't change the debates over oil drilling and coal mining. And the nuclear debate seems particularly

impervious to facts. Obama wants to triple funding for the already undersubscribed loan guarantees, but Republicans still accuse him of insufficient nuclear fervor. So don't expect the U.S. to copy German Chancellor Angela Merkel, who just shut down seven aging plants. GOP Senator James Inhofe of Oklahoma has already rejected the idea of 'a nuclear problem," suggesting that "once in 300 years, a disaster occurs." That's true if you don't count Chernobyl and you're sure nothing will happen for the next say years.

The industry's defenders may ignore Fukushima Daiichi, but he industry will not. It's serious about public safety, and meltdowns are bad for business; no company wants to lose a sto billion reactor covernight. But additional safety measures cost money; in 2003 industry lobbyists beat back an NRC committee's recommendation for new backup-power rules that were designed to prevent the hydrogen explosions that are now all overthe news.

It may sound unrealistic to require plants to withstand a vicious earthquake and a 25-ft. tsunami, but nobody's forcing utilities to generate power with uranium. One lesson of the past decade, in finance as well as nature, is that perfect storms do happen. When nukes are involved, the fallout can be literal, not just political.

41

TIME March 28, 2011





OJI HAGA WASN'T JUST NEAR the tsunami that devastated northern Japan on March 11. He was on top of it. Somehow the fishing-boat captain kept his pitching vessel upright as the churning force of the wave attacked the shore, turning his coastal community of Akaushi into a graveyard of rubble and probably killing upwards of 10,000 people in the country's north. I met him barely 24 hours after he'd returned to the spot where his house once stood. Aside from the roof, which landed not far from his building's foundations, there was nothing recognizable that remained of his home. A few mementos were scattered in the kaleidoscopic wreckage: his waterlogged family albums were lodged in the axle of an upturned car, while his daughter's pink stuffed animal lay facedown in the mud.

Haga ignored most of these keepsakes. His first priority was scooping up sodden rice to take back to his hungry family and neighbors, who had escaped the wave by scrambling to higher ground. Yet even as the fisherman packed the ruined grain into a sack, he displayed the fortitude and generosity that have so defined this devastated region of Japan. Haga was embarrassed that the rice was spoiled, but he invited me to take some. A neighbor had found a bottle of grain alcohol bobbing in a fetid pool. Would I like a fortifying gulp? The next day, Haga would join Akaushi's other survivors to begin the slow clearing and reconstruction of a village virtually wiped off the map. "We'll all try our best to do this together," he said, not a note of pity in his voice. "That's the Japanese way, isn't it?'

Natural disasters lay bare the best and worst in people, stripping away hubris and artifice. The tragedy in Japan-a 9.0-magnitude earthquake followed by a killer tsunami and compounded by a nuclear accident at a tremor-and-tidal-wavedamaged power plant-brought into relief the remarkable resilience of the Japanese people. Defining a national psyche can be a tricky undertaking. But the dignified stoicism with which the Japanese have faced this tragedy is extraordinary to see.

Japan's resilience, however, is not solely to be explained in terms of some innate psychological trait that its people possess. It is also manifested in the nation's preparedness. As high as the official death toll will climb in the coming days, there is little doubt that the complex tsunami and earthquake early-warning systems that Japan has in place saved tens of thousands of lives. Now as Japan struggles to overcome one of the worst natural disasters in its history-though the earthquake on March 11 was the most severe in modern times, far fewer died than in the Great Kanto Earthquake of 1923-it will need even more reserves of fortitude to remake a nation that is all too familiar with losing everything and starting anew.

Marooned on the edge of a continent and perched on one of the most seismically active spots on earth, Japan, for all its modern comforts and luxuries, is a country that lives on the brink of disaster. Even its language is a testament to how this sense of precariousness has shaped the national consciousness. I say this as someone who is half Japanese and should know how to articulate a nation's mind-set. But even I find it hard to define gaman, a unique mix of endurance and self-abnegation that practically all people I spoke to in the disaster zone used to describe their situations. Or what about shoganai, which is often translated too simply as "There's nothing you can do"

That's not quite right. The fatalism implied in the phrase denotes not just a helplessness at life's vagaries but also a calm determination to overcome what cannot be controlled. Even those who never lived through Japan's last days of privation during World War II know what is required of them as Japanese citizens. "We, the young generation, will unite and work hard to get over this tragedy," says Mamiko Shimizu, a 24-year-old graduate student. "It's now our time to rebuild Japan."

This earthquake and tsunami may turn out to be the costliest natural disaster in history, outpacing even Hurricane Katrina in 2005. The gravity of the situation was underscored when Emperor Akihito appeared on March 16 for his first-ever televised address to say he was "praying for the safety of as many people as possible," a sentiment repeated by a grim-faced Prime Minister Naoto Kan in daily public appearances. Nevertheless, despite the cost and loss of life, Japan's ultra-sophisticated earthquake-and-tsunami-alert system increased the odds for everyone. Survivors I met told versions of the same story. The earthquake unleashed its fury. Then because of radio broadcasts, text messages, sirens, firemen's door-to-door calls and just plain instinct honed by years of disaster drills at school, people from towns and villages along the coast-Japan's population is concentrated in an often narrow coastal plain-immediately fled to higher ground.

Japan is the only country on the planet





A History of Japanese Pain. Tragedies both natural and

man-made



19th century The Great Wave Hokusai's iconic woodblock print reflects the Japanese cultural awareness of menacing tsunamis



1923 Great Kanto Earthquake Striking at lunchtime, the 7.9 magnitude quake leveled much of Tokyo and killed more than 100,000



1942-45 Firebombing of Tokyo Less well known than attacks on Hiroshima and Nagasaki, U.S. raids on Tokyo killed over 100,000 in 1945 alone



1995 Kobe earthquake This quake, which killed about 6,000, caused more than \$100 billion in damage during Japan's lost decade

TIME March 28, 2011 45 with an earthquake early-warning system in place. It is also the only one with a truly successful tsunami-alert scheme—300 earthquake sensors scattered in territorial waters that can predict the likelihood of a tsunami in minutes. Tsunami evacuation routes are posted up and down the coast. When the government says to evacuate,

the Japanese people listen. A sense of order, moreover, is not confined just to government manuals. In the wake of the disaster, there has been no looting, no rioting. Even as people hoping for food, water and fuel wait in kilometer-long lines in freezing weather-sometimes without success-tempers have not flared. Rationing of basic supplies has been accepted with few complaints. The assumption is that everybody has to share the pain equally. At Masuda Middle School, one of hundreds of emergency centers housing some 450,000 homeless people, the loudspeaker emitted a crescendo of friendly announcements, "Please come enjoy your piping hot rice now," went one. "Please be alert to the fact that the fish roe is a bit spicy, so it may not be suitable for small children," went another. In the emergency shelter at Koizumi Middle School, people not used to wearing shoes indoors constructed origami boxes made of newspaper in which to nestle their footwear.

Even the expressions of grief in Japan's worst affected zone have been restrained. For foreigners used to the keening anguish of natural disasters, the hushed sorrow must be mystifying. In Japan, tears do fall, but less noisily. When Masahira Kasamatsu, 76, found out after three harrowing days that his missing daughter was safe, he merely nodded and repeated slowly. "She's O.K., she's O.K." That might sound overly subdued, but I understand it. When I would see my Japanese grandmother after a long absence, we would never hug, merely exchange a quick squeeze of the hand. My affection for her was no less for the lack of an embrace.

Ithought of my grandmother as I was thought of my grandmother as I was that had been tidy seaports just days before. Wheelchairs were some of the few recognizable jumbles of metal in the miles upon miles of detritus. Japan is the most rapidly aging society on earth. Becabes of a low fertility rate, the country's population is expected to shrink one-quarter by 2050. Many of those who perished in the quake and tsunam were simply too old to escape. Nursing homes are among the places that most urgently require aid. Elderly Japanese

who evacuated to emergency shelters relied on the younger generation for help. This is a nation where Confucian respect for the aged holds. "If it wasn't for the young people in our family, we wouldn't have known anything," says 84 year-old Kimi Sakawaki, whose son surfed the Internet at home to find the evacuation centeral Yonez-way evm nasium.

ter at 10 none-awa gymnasum.
Still, the elderly who survived the
March 11 catastrophe know better than
any other Japanese how quickly their
homeland can revive itself. My grandmother used to recall the U.S. firebombing of
Tokyoduring World War II, which reduced
half the capital to rubble. The pictures of
that era bear a haunting resemblance to the
images coming out of northeastern Japan
today. Yet within two generations, Japan
had transformed itself from a defeated land
into the world's second largest economy. Incomes were spread relatively equally, with
little poverty to speak of, Japan took on a
contented. Comfortable air.

Perhaps too much so. For while there are lessons to be learned by other nations from both Japan's postwar success and its resilience in the face of disaster, rigid hewing to the rules and the suppression of individual creativity for the common good can go too far. They may, indeed, have undermined Japan's economic miracle. (Just try to order a salad with the dressing on the side in Japan and watch the consternation of the waiter at such an unorthodox request.) After the bubble economy of the 1980s collapsed in 1991, Japan entered a long economic slumber, from which it has yet to fully wake. Last year, China surpassed Japan to take the spot as the world's No. 2 economy.

Similarly, in the earthquake and tsunami zone, adherence to reams of regulations unquestionably saved lives. But it also hampered rescue efforts, as each tsunami warning or earthquake alert-as of March 16, about 50 major aftershocks and several small tsunamis had been recorded-forced some official crews and convoys to halt work for far longer than needed. More fundamentally, an inability to respond spontaneously and creatively to uncharted events has prevented aid from getting to survivors quickly enough. Radio stations broadcast urgent calls for emergency supplies of infant formula, adult diapers-even seaweed, which is rich in radiation-fighting iodine. But four days after the quake, highways were mostly devoid of the kind of aid convoys that usually converge on a disaster zone, in part because of the colossal scale of the catastrophe and



central-government weakness. It's hard to avoid the awkward question, What does Japan do when the sheer magnitude of tragedy overwhelms its plans?

Of equal importance is the cone of silence around the damaged Fukushima Dailchi nuclear power plant. Even as overheated fuel rods caused radiation to leak in what scientists called the worst nuclear accident since Chernobyl, information from the government and power-plant officials was piecemeal and tardy. The head of the International Atomic Energy Agency, himself



walks through the rubble of Natori

to see what would happen at the crippled reactor site, ordinary Japanese quietly came to one another's rescue. Just hours after a fire at the Daiichi complex, Kichi Ishikawa drove deserted roads not far from the plant to deliver noodles to the needy. "I'm just doing what needs to be done," he said. "It's nothing special," For Kenichi Numata, there was little time to even explain his actions, much less process his own sorrow. After the earthquake, he and 1,600 others dashed to the airport in Sendai, the region's largest city, and watched as dozens

Japanese, complained publicly about the authorities' slow response. "I would like to receive both more timely and more detailed information from our Japanese counterparts," said the official, Yukiya Amano. Locals agree. "The nuclear-power-plant disaster reminds me of World War II, when we didn't get enough information about what was really going on," says 79-year-old Noriko Wada. "The government only gave the information it wanted to, and people needed more details."

But even as a country waited anxiously

perished in the surrounding tide of mud and debris. Numata knew that his house had been swept away by the tidal wave. But he had a self-imposed task; organizing dazed locals trying to figure out whether their missing family members might be alive. Just in the past few hours, he had told several people their kin had died. It was not an easy job. "I'm sorry," he said, bowing deeply in apology. "But I had better go back to work." - WITH REPORTING BY LUCY BIRMINGHAM/TOKYO, TAI DIRKSE/ SENDAL AND KRISTA MAHR/YONEZAWA

THE **10 IDEAS** THAT WILL **CHANGE** THE WORLD. **FOR THE** BETTER



AFGHANISTAN

ALIENS

THE DEFICIT

JOBS

AIRPORTS

STEM CELLS

SHARING

DIGITAL LOVE

GOOD CAUSES



Sweet Bird of Youth! The Case **For Optimism**

BY CHARLES KENNY

YOUTH, ANTISOCIAL, MOBILE-TAPPING, LADY GAGAobsessed lavabouts who get off the couch only to riot. What's to like? Rather a lot. In the Middle East and North Africa, youths played a major role in bringing down some long-standing dictatorships. And that may be only the start. A burgeoning young population might help speed global economic growth and be a sign of positive developments in the quality of life worldwide.

Around the world, countries are in various stages of progress through what economists call the demographic transition. That's the move from high rates of fertility and mortality-women having lots of children, many of whom die young-to low birthrates and



longer life expectancies. The rich countries of Europe and North America, along with Japan, are all the way through this transition, with many of them seeing shrinking populations as a result. Africa is still in the middle of the change; Latin America and Asia are further ahead.

In all regions of the world, mortality rates have. To put it crudely, fewer people die before fertility rates have. To put it crudely, fewer people die before fewer people are born. That's why we've seen such charmatic global population growth over the dramatic global population growth over the many ast 50 years, from 3 billion to nearly 7 bil-1ion. At the start of the demographic transition, women still have lots of children, but ut in, women still have lots of children but violated, but adulthood and od age. Only after a while do adulthood and od age. Only after a while do adulthood and od age. Only after a while do moments not only do populations increase, so but the average age of people also drops. You get a vouth bulge get a vouth bulge get a vouth bulge get a vouth bulge get a vouth bulge.

Take the developing countries of the Middle East and North Africa as an example. In 1960, on average, women in the region gave birth seven times, and about one-quarter of children died before their fifth birthday, By 1980 child mortality had almost halved, but fertility rates remained stubbornly high. Child mortality dropped further by 2000, and at last fertility began to follow—dronoming to three births

per woman. Meanwhile, the proportion of working-age people increased from about half in 1980 to nearly two-thirds today.

Traditionally economists and political scientists viewed a youth bulge as a problem. As part of a rising number of mouths to feed and hands to employ, an army of youths would put pressure on wages and food supplies, potentially dragging developingworld societies further into poverty. And youths could all too quickly become a literal army—provoking unrest and civil war. But in many countries, recent evidence tells a different story.

Work by David Bloom at Harvard and other economists suggests that the youth bulge can speed economic development. When a greater percentage of the total population is of working age, then, other things being equal, you would expect income per person to be higher. As women cease spending their most productive years having babies, they can enter the workforce. That's good. It is working-age people (not children or retirees) who save the most, creating more funds for investment and growth. Bloom and his colleagues suggest that as much as a third of East Asia's "miracle" growth rates over the past few decades might be attributed to the youth bulge.

But there's nothing inevitable about a youth bulge producing a growth dividend. Benefits have to be earned. Without the right policies spurring education and job opportunities, they won't materialize. The Middle East got education right: college and university enrollment in Egypt has doubled since 1990, for example, and Cairo University alone has about 200,000 students. But a sclerotic private sector and hidebound institutions have failed to create sufficient jobs for graduates. Unemployment among 15-to-24-year-olds in the Middle East and North Africa is above 25%. And despite the fact that in many countries in the region there are more young women than young men in college, few women are active in the workforce, especially after marriage.

In the Middle East, then, young people had nowhere to go but the street. Luckily, once there, they confounded skeptics by favoring ringtones over riots. Young, educated and tech-savvy, they helped foment peaceful revolutions. Think of Tahrir Square as Egypt's Woodstock—only cleaner and with a purpose.

Political scientist Chris Blattman of Yale suggests that it isn't just in the Middle East that the link between youth and political violence might be weaker than many once

thought. Around the world, he notes, "the people who riot or rebel are poor, unemployed young men... The problem is that the people who don't riot are also poor, unemployed young men. Most of the population is poor and unemployed and young. It's not clear that the poorer and less employed are more violent." It is clear, though, that if the youth demonstrations lead to more



responsive governments that focus on creating jobs, the region may at last start seeing a demographic dividend.

That's just the start. Behind the youth bulge is more good news. Falling fertility and mortality rates are great outcomes in their own right. They mean that the probability that a woman in the Middle East or North Africa will go through the pain of watching one of her children die before its fifth birthday has fallen from \$5% in 1960 to just about 10% today. That's still too high, but no parent could call it anything other than wonderful progress.

Moreover, falling fertility, along with reduced risk from childbirth, means that maternal mortality has dropped worldwide. The number of mothers who died in childbirth fell from 526,000 in 1980 to 343,000 in 2008. Reductions in fertility and child and maternal mortality are all connected to a greater power among the world's women to make decisions about how many children they want and how to raise them. A sign: girls' school-enrollment rates have been climbing rapidly worldwide. Even in parts of the Middle East, they now match or surpass boys' rates of enrollment. Declining birthrates also reflect family-planning programs' rolling out access to modern contraceptive techniques, which have reduced birthrates by as much as 1.5 births per woman.

Falling mortality at a time of rising populations worldwide suggests even more good news the global breakdown of the so-called Mathusian trap, which predicts that rising population will lead to increased poverty. famine and even war as limited resources are spread among ever more people. Instead, famines have become increasingly rare. Wealth has been spreading so much that global poverty has been more than halved since 1990. And the recent past has seen a considerable downtick in violence: there were 24 wars going on in the world in 1984, but by 2008 that number had dropped to five.

The spread of global democracy, better health, more education, less violence—ital adds up to a much better world. And that suggests the biggest new idea of all: it's time to abandon our usual pessimism about the state of the planet and the course of history. We've got many challenges to overcome, but it might be a good idea to adopt a bit of youthful optimism when it comes to confronting them. After all, we appear to be making netty good progress.

Kenny is a senior fellow at the Center for Global Development and a Schwartz fellow at the New America Foundation. He is the author of Getting Better: Why Global Development Is Succeeding and How We Can Improve the World Even More PLUS: FIVE OTHER THINGS TO MAKE YOU FEEL BETTER



NOZONE
Remember the ozone hole? It has almost losed, thanks to fewer CFCs in hair sprays and refrigerants.

SURVIVING HIV
The numbers
Ilving with HIV
have leveled off,
while the rates
of death and
new infections
have fallen.

WRORECOVERY
Will Europe
muddle through
its sovereigndebt crisis? Yes,
it will.

IN THE BLOOD They're not here yet, but they're coming: blood tests to detect certain cancers and Alzheimer's.

ART FOR ALL HD broadcasts theaters mean more people ca watch great live opera and theater



Why Afghanistan Is Far from Hopeless

BY PETER BERGEN

IN WINTER, A NOXIOUS FOG SOMETIMES DESCENDS ON Kabul that is so acrid, you can actually taste it. It's a toxic brew of fumes from traffic jams and thousands of charcoal fires, and it's a testament to the fact that in the decade since the fall of the Taliban, Kabul's population has gone up sixfold, from 500,000 to about 3 million.

This gets to the paradox of Afghanistan today: despite the enormous level of government corruption and the Taliban's resurgence in parts of the country, there is another story here—of Afghan recovery and progress. But this story is not well understood by many Americans, 6 out of 10 of whom now oppose the war in Afghanistan.

Consider that under Taliban rule there were only a million children in school. Now there are 6 million, many of them girls. During the Taliban era, the phone system barely existed; now 1 in 3 Afghans owns a cell phone. Basic health care has gone from being a luxury to being available to most of the population, and annual economic growth is over 20%.

These kinds of advances explain why 6 in 10 Afghans in a poll last fallsaid their country is going in the right direction. The positive feelings Afghans have about the trajectory of their country seem counterinuitive given Afghanistan's deep poverty and feek less government, but they become more explicable when you re-call what life under the Taliban was like. The Taliban incarcerated



half the population in their homes, massacred thousands of Shi'ites, hosted pretty much every Islamist terrorist and insurgent group in the world and were pariahs on the international stage. Simultaneously, they presided over the collapse of what remained of the economy. And before the Taliban, there was civil war and rule by warlords; before that, a communist dictatorship; and before that, brutal Soviet occupation.

No wonder that 6 in 10 Afghans today have a favorable opinion of the U.S. military presence in their country. They understand that the U.S. is a guarantor of a future that is somewhat better than the Afghan past. They are not, of course, expecting Afghanistan to be turned into a central Asian nirvana, but they are hoping for more security and prosperity, and there is reason to believe they are right to do so. The war in Afghanistan still claims far fewer victims than the war in Iraq, a conflict widely believed to be all but over. Last year about 4,000 Iragi civilians were killed by warring factions, while in Afghanistan, which has a larger population than Iraq, some 2,800 civilians died in the conflict. That makes the death rate of the Afghan war o per 100,000, (The murder rate in Washington is 22 per 100,000.)

The Taliban are getting squeezed where it hurts. The southern province of Helmand is the linchpin of Afghanistan's opium trade and a region where the Taliban once roamed freely. Now it might as well be Marine-istan, so effectively does the U.S. control most of it. A recent BBC poll found the proportion of Helmand residents who say their security is "good" has jumped from 14% to 67% since 2009. And in Kandahar, the birthplace of the Taliban, the religious warriors have been pushed out of key districts. The International Council on Security & Development, a think tank that has done field work in Afghanistan for years and is generally critical of Western policy, released a report last month that concluded that the U.S. troop surge in Helmand and Kandahar had improved security significantly.

This makes the prospect of "reconciliation" with elements of the Taliban more plausible. Insurgents do not make peace deals when they think they are winning, but they might if they begin to think they are losing. Richard Barrett, the U.N. official responsible for monitoring the Taliban, says, "I have heard of 12 different initiatives designed to engage the Taliban in talks." And such initiatives are pursued with a large national consensus that this is the right way forward; more than threequarters of Afghans favor negotiations with the Taliban.

President Obama has also shifted the calculations of the Taliban by announcing that American combat forces will stay in Afghanistan until the end of 2014, a sea change in U.S. policy that has surprised the Taliban and even dovish members of Obama's Cabinet. When Obama announced the surge of 30,000

troops into Afghanistan in December 2009, he said they would start withdrawing in 18 months. Vice President Joe Biden subsequently opined, "In July 2011, vou're going to see a whole lot of people moving out.

Extending the deadline is enormously important. The fact that there will be large numbers of American forces in Afghanistan for the next four years has major implications for all the players in the country. Taliban detainees have told their U.S. interrogators that the prospect of fighting for another four long years is sapping their morale. And more years on the clock will allow the buildup of a much larger and more effective Afghan National Army-one that is more capable of resisting the Taliban-while giving Afghan politicians sufficient time to organize to defeat the Karzai mafia, which now dominates the country.

There is also some real hope that Afghanistan's economy can be based on more than just international aid and opium production. In January, an obscure Pentagon office, the Task Force for Business and Stability Operations, released a report about Afghanistan's mineral wealth. The 40-page study details the size and location of an estimated \$900 billion worth of mineral deposits across Afghanistan, the fruits of "remote sensing technology" of satellites, buttressed by the work of geologists on the ground taking samples.

The Pentagon report concluded that Afghanistan could become a "world leader" in lithium, which is used in making batteries and other industrial processes, and it found a massive copper deposit just south of Kabul and next door to another giant copper seam for which the Chinese have already paid \$3 billion for the right to mine. The report also identified substantial gold deposits; three months ago the Afghan government approved a deal brokered by JPMorgan in which Western investors will invest an estimated \$50 million in a gold mine in northern Afghanistan.

With such potential wealth below the surface, Afghanistan can "become either South Korea or Somalia," an official in the Afghan Foreign Ministry explained to me. Afghans already lived through their own version of Somalia during the civil war of the early 1990s and the subsequent rule of the Taliban, who restored order at the price

of imposing a brutal theocracy. They don't want more of that; fewer than 10% of Afghans in a number of polls hold a favorable view of the Taliban. There's nothing like living under Taliban rule to convince one that the group's promises of Islamist utopia here on earth don't pan out. Instead, Afghans want what everyone else wants: a slightly more prosperous and secure future. Slowly, very slowly, that goal is being met.



4.000 Iraqi civilians who were killed by warring factions in the



Bergen, a frequent visitor to Afghanistan since 1993, is the author of The Longest War: The Enduring Conflict Between America and al-Qaeda and the director of the national-security studies program at the New America Foundation



Relax: You Don't Need to Worry About Meeting E.T.

BY JEFFREY KLUGER

THE RECIPE FOR LIFE OUGHT TO BE PRETTY SIMPLE: START WITH WATER, add some hydrocarbons and simmer for a million millennia or so. Nothing but chemistry plus energy plus time. It worked on Earth; it might have worked on Mars, till the planet dried up. For all we know, it's working right now in the deep oceans of jupiter's moon Europa. Humans and aliens haven't connected yet, but with 10° stars out there (that's 1 with 22 zeros), it's just a matter of time—right?

yet, but with 10° stars out there (that s 1 with 22 zeros), it s just a matter of time—right: Wrong. If exobiologists have learned anything, it's that you and your kids and their kids' kids will probably never hear the slightest peep from an alien. If E.T. the movie star

is your idea of what extraterrestrial life might be like, you will be disappointed. If your thoughts run more to *War of the Worlds*, you can breathe easy.

How can we be so sure? Start with the numbers. Most stars are too far from Earth for us to hear from the theoretical inhabitants of any of the theoretical planets orbiting them. A signal from a star 1,000 lightyears away would, by definition, take 1,000 years to get here—and that's just next door, in an observable universe with a radius of some 14 billion lightyears.

"If the nearest hundred or thousand stars don't have life, we probably won't ever, ever, ever know about it anywhere else," says astronomer Don Brownlee of the University of Washington, in Seattle.

Whether or not we ever hear from aliens, cooking up life may be a whole lot more complex than just mix, heat and serve. Even asteroids are known to have once contained water ice, and radioactive isotopes—which have since decayed—provided them with warmth. But they're hardly crawling with living things. What's needed, says Brownlee, is a more varied world, like Earth, that has a to chemical disequilibrium, which in turn leads to electrons' being traded back and forth. That's what builds complex molecules and later, organisms. 'It's not a matter of random assembly,' he says. "You could put all of the elements of life in a jar and wait a trillion years, and it'll still us the there."

Thysicist and cosmologist Paul Davies of Arizona State University is even less persuaded of the odds of otherworldy life. The author of The Eeric Silence, which argues—well, you can guess—Davies questions some of the most fundamental premises of our search for extraterrestrial life, including our hunt for earthlike worlds. "There's extraternestrial life, including our hunt for earthlike worlds." There's extraternestrial file, including our hunt for earthlike worlds. There's extraternestrial premises of season with the same as in habited, "he says." I have no idea what turns nonlife into life. I get irritated by people who say life can emerge in earthlike conditions."

Our scientific methods are also hopelessly poor, because almost all our theories of life are drawn from the only place we know it exists, which is right here. When your sample group is so vanishingly small—when n=1, as the statisticians say—you've got a long way to go before you reach statistical significance.

But the biggest mistake exobiologists make may be believing that the only place to look for alien life is on alien worlds. The best place to find it could be on Earth. Hiffe indeed developed with relative case, Davies argues, it could have emerged numerous times in numerous different forms right beside carbon based organisms like us. We don't see it because we don't know what we're looking for.

We've already discovered life in extreme environments on our own planet notably in deep volcanic vents where water is heated to 120°C (350°P), temperatures that ought to be unsurvivable. Those organisms don't count as allens because on the temperature spectrum, they fee living in a zone adjacent to our own. "They don't ity," Davies says. On the other hand, if we found no life at all in the 125°C 10-15°C (260°P to 350°P) range and then a critter opped up at 150°C (385°P), we might be onto something.

Or course, even such anens would naturally be the kind we either crave or fear—those who could regale us with tales of what things look like on the other side of the cosmos on the one hand, or conquer us with their superior intellects on the other. Too bad—or maybe very good—you're never going to see them.



He recently "acquired" the all-new 2011 Kia Optima. With push-button start, standard Bluetooth wireless technology, and available class-exclusive panoramic sunroof? Frankie will be spending less time on the

high seas and more time on the open road. Starting under \$19K.3



€ 200 HP











Fix the Deficit? We Can Do That

BY MARC GOLDWEIN

IT'S RABE THAT THOSE OF US CONCERNED ABOUT THE NATION'S FISCAL
course come bearing good news. The federal debt, after all, is as high as it
has ever been in the post-945 period and is growing uncontrollably. Under
our best projections, the debt will grow from nearly 65% of gross domestic
product today to over 90% by the end of the decade—a level that experts have warned
could have dangerous economic consequences.

Yet while our fiscal challenges are large and growing, they are not insurmountable. The National Commission on Fiscal Responsibility and Reform, on which I served as as-

sociate director, has shown a way forward. Its recommendations offer proof that broad bipartisan support for deficit reduction—based on the principle of shared sacrifice—is possible. Yes, the population is aging, which means Social Security and Medicare costs will rise. And yes, health care costs continue to grow faster than the economy, putting upward pressure on federal health spending. But we can address these challenges. Our problems are not fundamentally economic; they are political.

The politics of pain makes deficit reduction a difficult task, of course. More worried about the next election than about the next generation, politicians prefer to avoid or defer decisions that increase people's taxes or cut their benefits and services.

Making things worse, pledges of what no to do—raise taxes, meddle with Social Security, cut defense spending—are pervasive in Washington. The more pieces of the budget that policymakers take off the table, the harder it is to bring debt under control. And yet the fiscal commission overcame these odds. The plan would cut \$1.7 trillion in discretionary spending both defense and nondefense—while protecting, and in some cases increasing.

spending on education, infrastructure and high-value R&D. It would cut \$600 billion in mandatory spending, especially by reducing health care costs and reforming federal pensions, while protecting programs for the poor and disadvantaged. It would reform the tax code in a way that reduces or eliminates various tax breaks in order to drastically cut tax rates while helping generate nearly \$1 trillion in new revenue. And it would make the Social Security system solvent for the next 75 years and beyond through a combination of progressive changes to the benefit formula, a gradual increase in the retirement age and an increase in the amount of income subject to the payroll tax, among other measures.

In total, the fiscal commission's recommendations would reduce the deficit by \$3.9 trillion through 2020, bring annual deficits to manageable levels of 1% to 2% of GDP (compared with 10% this year) and put the debt on a downward path after 2013.

The recommendations prove that we can enact policies to bring the debt under control and do so without cutting spending or increasing taxes in a way that hurts low-income individuals or stifles investment and growth. Far more important, the commission showed that such a plan can garner support from across the political spectrum. The plan received the support of 11 out of 18 commissioners, a bipartisan supermajority that comprised five Democrats, five Republicans and one independent. The fiscal commission demonstrated emphatically that the parties can work together, in the spirit of principled compromise, to get our fiscal house in order.

Unfortunately, the President's budget this year failed to include most of the commission's recommendations, and House Republicans have thus far focused too narrowly on cuts in domestic discretionary spending. But neither party has ruled out the adoption of the recommendations. As tough votes on this year's budget and a debt-ceiling increase come up, a comprehensive deficit reduction plan may be the only way to avoid stalemate.

On our commission, we actually found that the "go big" approach helped garner more votes, not fewer. Republicans were willing to cut defense spending, but only if nondefense spending (including entitlements) was also cut. Democrats were willing to accept sub-

> stantial spending cuts, but only if accompanied by significant new revenues.

> If President Obama and the leadership of both chambers of Congress—and both parties are willing to enter into serious negotiations to solve our fiscal problems, there is no doubt that they can reach agreement. Everyone will have to give up something. After all, the solutions are painful. But in the process,

everyone can get something in

trillion
Amount the fiscal commission's plan would cut from the deficit through 2020

Goldwein is policy director of the Committee for a Responsible Federal Budget

return: a better future.

54

Only AT&T's network lets your iPhone talk and surf the web at the same time.



On the **nation's fastest** mobile broadband network.







Your Next Job: Made in India or China

BY MICHAEL SCHUMAN

THERE IS A CHANCE, AND MATBE EVEN A GOOD ONE, THAT YOU'LL WALK INTO work one Monday morning and find out your job is being moved to China or India. Millions have already seen that happen, from shop-floor machinists to IT specialists, in places as disparate as Italy, the U.S. and South Korea. China is a manufacturing machine, charging into the global market for everything from cars to solar panels. India's highly trained engineers are outdueling Stanford grads for jobs in R&D, software development and other sectors that are supposed to be the West's economic salvation. The harsh realities of the globalization of labor have left much of the world's

workforce feeling despondent. Everyone in places like London and Los Angeles is competing with smart applicants from Bangalore or Shanghai who are willing to work long hours for a pittance. When there are 2.5 billion people in those two Asian giants combined, how can anyone's job be safe?

Yet there's another way of looking at the great shift of economic power to the East, one that is much less scary and perhaps even inspiring. Those 2.5 billion people are getting richer by the day. This presents an unprecedented opportunity for the workers of the world.

Thirty years ago, the average person in China or India could afford almost nothing beyond basic food and other simple necessities of life. That poverty was a problem for all of us. With so little spending power in the developing world, the global economy was dependent on a handful of wealthy nations, especially the U.S. Today, however, China and India have become a new source of growth for the global economy. Hundreds of millions of Chinese and Indians can now splurge on Sony LCD TVs, Australian steaks and Apple iPhones. Last year, Indians and Chinans and

nese bought 19,9 million new passenger whicles, 70% more than Americans did, according to J.D. Power. This new bonanza for consumer goods in creases demander of copper, cotton and other natural resources; the machinery to manufacture those goods, the ships and trucks to transport them; and the people to design and self them. The result is higher sales and bigger profits for companies such as Boeing and Rio Tinto, as well as more jobs.

We've already seen the benefits. If not for the continued rapid growth in emerging economies like China and India, the world might easily have descended into a real depression in 2008. China lifted all of East Asia out of the recession by buying capital equipment and consumer goods from Japan, South Korea and the rest of the region. U.S. exports of goods to China reached \$92 billion in 2010, a 32% jump. The influence of China and India will only spread and strengthen as the two countries get wealthier and purchase more from the rest of the world. In Western Australia, the local chamber of minerals and energy believes the industry will create 40,000 jobs over the next three to five years in that state alone, in part because of expanding exports to China.

The newly rich of China and India are also bringing their money right to your doorstep. Their citizens are becoming active tourists, filling hotel rooms and dining out in Times Square and Tokyo's Ginza. According to the U.N. World Tourism Organization, the number of Chinese traveling outside the country rose to 47.7 million in 2009, 54% more than in 2005, and they spent more than French, Japanese or Canadian travelers. Chinese and Indian companies are expanding overseas in a quest for global presence and markets, creating jobs everywhere. Mumbai-based IT giant Tata Consultancy Services-a firm built on outsourcing from the U.S. and Europeemploys more than 13,000 non-Indians, nine times as many as in 2005. Chinese firms invested \$56.5 billion abroad in 2009, up from only \$12.3 billion in 2005, and they tend to hire locally as they invest, to absorb talent and know-how. Not one of the 450 people who work in the U.S. for Chinese appliance maker Haier is from China.

The advance of China and India demands an overhaul in the way we think about jobs. You might just find, for example, that your biggest customers are in Chengdu, not Chicago, or that your boss sits in New Delhi, not New York City. Your paycheck could come in renminbi or rupees instead of in euros or dollars. Sure, in this new economic order, your job may be lost to Chinese or Indian workers. But don't worry. They'll give it right back.

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Think of Your Airport As a City—but Nicer

BY PICO IYER

HOME IS NOT A MATTER OF WHERE YOU SLEEP BUT OF WHERE YOU STAND.
I made this curious pronouncement seven years ago at a conference next to
the Dallas-Fort Worth airport (DFW), and to my surprise, the diplomats,
Air Force officers, teachers and executives gathered in the room seemed largely to agree. They felt closer to fellow nomads in Singapore or Toronto, they said, than to
their geographic neighbors. But when we flew away after three days of discussing global
families in our hotel, I realized something even more displacing; none of us, in 72 hours,
had set foto tutside the airport complex, a small universe of five terminals, a 56-hole golf

course and 400,000 jobs within a 5-mile (8 km) radius. No surprise. The community that has formed around the terminals—the Dallas—Fort Worth Metroplex, as it's known—is home now to 6 million people and is the fastest growing city in the U.S.

The days when we built our airports around cities now seem distant in the new, mobile century, we build our cities around airports. For most businesses, it's more important to be close to Bangalore or Shanghai than to be near the next suburb over. And as we complete "the annihilation of space by time" that Marx predicted, and as connectedness becomes more urgent than



da, is a business professor in North Carolina who flies from Amsterdam to Seoul preaching the gospel of building homes and

rootedness, airports are not just becoming cities. Cities are becoming like airports—places to leave from more than to live in.

I'd always sensed this, but it came home to me with almost shocking immediacy when I was reading the dazzling new book Aerotropolis. One of its authors, John F. Kasartia, is a dustniess protessor in voir Catoo lina who flies from Amsterdam to Seoul preaching the gospel of building homes and businesses near airports. Co author Greg Lindsay is a journalist who knows how to make Kasarda's research racy while raising questions about the cost of living in midair.

Three To Check Out

Dubai International It cost \$4.5 billion to build and will have an 80 millionpassenger capacity by 2012

Beijing Capital International Its "global kitchen" has 72 food shops and promises to keep prices in check Dallas-Fort Worth International A model U.S. airport, it has its own ZIP code and expansion plans for up to 13 terminals As Kasarda sees it, the writing's already on the screen. The third largest computer company on the planet, Lenovo, doesn't even have a corporate headquarters, its excutives just orbit the globe. Two in every five IBM employees have no office. And Ram and the most influential consultant alive," in FORTUNE'S words, had no home until the bought noe (in Dallas, of course) at 67. Previously he lived entirely in hotels and on planes, sending his laundry to an office in Dallas, from which strangers sent him fresh clothes at a future destination.

Much of this is as alarming as hearing George Clooney's character in *Up in the Air* say, "The slower we move, the faster we die." What does a world in constant flights say about family ties and continuity? Doesn't the aerotropolitan way of life put business before humanity and convenience before community."

Aerotropolis points out that we can still address the oldest needs but in new and liberating ways: A grandmother flies to DFW every Tuesday from her home in Houston to babysit for her daughter, who is completing her medical residency, Polish surgeons commute every week to work in Nottingham, England, as fast as Brits travel on weekends to Estonia for stag parties. Yet several years ago, I spent two weeks living in and around Los Angeles' LAX to see what the global city of the future might look like. I've never been so exhausted. People were shouting, sobbing, sitting alone and confused at baggage carousels. Airport workers kept telling me how travel is etymologically related to travail. The whole experience felt as unsettling as be-

ing in a city of cranes like Beijing or Dubai. But maybe I was drawing the wrong conclusions. Norman Foster's Terminal 3 at Beijing Capital International is larger than all five of Heathrow's terminals combined, and when you walk through the mile-long (1.6 km) dragon-headed structure, it's hard to dispute that it's infinitely more appealing than the overcrowded cities and villages all around. It was the largest airport terminal in the world until Terminal 3 in Dubai eclipsed it. Emirates Airlines not long ago boasted profits greater than those of all U.S. carriers combined, LAX, which I'd taken to be the future, is, in fact, like New York City's JFK, hopelessly lost in the past. Even as LAX is busy upgrading shuttle buses to take visitors downtown, Beijing and Dubai-like Dallas-are building whole cities in the air that allow them to take off, again and again. It's only those of us stuck on the ground, perhaps, who can't see the larger picture.

Iyer is the author of The Global Soul, about airports and movement

BY ALICE PARK

TREATING DISEASE IS ABOUT FIXING BROKEN PARTS—about replacing cells that no longer work as they should, repairing tissues that faller and boosting systems that fail. But curing disease is a different matter. To cure disease, you have to do all of that and more. You have to remove the pathological cause of the problem and to ensure that it doesn't return. This requires teasing out where rogue cells went wrong and finding a way to nurture healthier ones to replace them.

That's where the promise of stem cells lies. As the mother cells of every tissue in the body, they are the biological ore from which the body emerges. All cells can trace their provenance to a stem cell, to the embryo and the first days after fertilization when such cells form. It's now possible to grow stem cells in a lab, not just from embryonic tissue but also by turning back the clock on an already developed cell like one from the skin, by passing the embryo altogether with four important fountain of youth genes that rework the skin cell's DNA machinery and make it stemlike again.

These biological wonders are transforming the way we treat disease as well as how we think about unhealthy states and even





the way we approach aging. Now that it's possible to generate an unlimited supply of stem cells from our own tissues, scientists say it's only a matter of time before they figure out how to turn those cells into nerves, heart cells, liver cells or any other living tissue we may need if we get sick or injured. Disease, therefore, no longer needs to be a black box of medical mystery. To expose what makes nerve cells in patients with Lou Gehrig's disease lose their ability to control muscle, for example, some researchers have already grown motor neurons from stem cells made from patients' skin and watched how they develop, at first normally, then veering off into pathology. Such a disease-in-a-dish strategy led to the discovery that it's not the motor neurons that are at fault but that other cells assigned the task of supporting these nerves turn toxic and break down the connections to muscle. With that insight, drugmakers have begun screening compounds to see if they can find an agent to block that lethal effect.

Even when we already know what causes a disease, stem cells can help us improve on existing therapies. Stem cells may make it possible for Type 1 diabetics, for example, to eliminate their repeated blood checks and insulin injections by someday allowing them to generate their own insulin-making pancreatic cells. If stem cells can replenish the dying brain neurons that affect memory and cognition, Alzheimer's patients might also benefit.

But why stop there? If these cells can replace ailing cells, why not aging ones? Can stem cells, as a source of replemished, renewable and healthy cells, keep us young forever? 'In the absence of disease, why would we die?' asks Douglas Melton, a stem-cell researcher at Harvard University. "With stem cells, can we get control of the aging process?"

There's tantalizing evidence that this might be possible, at least when it comes to blood and the immune system. Thomas Rando, a researcher at Stanford University, thinks stem-cell treatments may enhance healing in older patients who have difficulty recovering from surgery or a fracture. But he's also thinking about deeper issues involving the power of regenerative medicine. "There are very basic questions I hope we can make headway on using stem cells-in terms of understanding cellular aging, how that's related to tissue aging and the aging of an organism," he says. Which leads to the interesting possibility that with stem cells, we may no longer define age as how old we think we are but as how old our cells tell us we are.



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BY BRYAN WALSH

SOMEDAY WE'LL LOOK BACK ON THE 20TH CENTURY AND wonder why we owned so much stuff. Not that it wasn't great at first. After thousands of years during which most human beings lived hand to mouth, in the 20th century the industrial economies of the West and eventually much of the rest of the world began churning out consumer goods-refrigerators, cars, TVs, telephones, computers. George W. Bush won re-election as President in 2004 in part by proclaiming an "ownership society": "The more

Netflix has more than subscribers:

people have a Zipcar membership

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vitality there is in America." Even as Bush was announcing its birth though, the ownership society was rotting from the inside out. Its demise began with Napster. The digitalization of music and the ability to share it made owning CDs superfluous. Then Napsterization spread to nearly all other media, and by 2008 the financial architecture that had been built to support all that ownership-the subprime mortgages and the credit-default swaps-had collapsed on top of us. Own-

ownership there is in America, the more

just about ruined the country. Maybe we're all learning though. You're not likely to be buying big-ticket items if you're out of work, and even if you have a job and a house, good luck taking out a second mortgage to help you scratch that consumerist itch. That's especially true for the young, who've borne the brunt of the recession, with a jobless rate in the U.S. of about 20%.

ership hadn't made the U.S. vital: it had

And it's the young who are leading the way toward a different form of consumpgives more than 500,000 members the chance to share cars part-time. Those companies, however, while successful, are essentially Internet-era upgrades of old car- and video-rental businesses. The true innovative spirit of collaborative consumption can be found in start-ups like Brooklyn-based SnapGoods. which helps people rent goods via the Internet. Or Airbnb, which allows people to rent their homes to travelers. There's a green element here, of course: sharing and renting more stuff means producing and wasting less stuff, which is good for the planet and even better for one's self-image. And renting a power drill via SnapGoods for the one day you need it is a lot cheaper than buying it. It's a perfect fit for an urban

lending and even sharing goods instead of

buying them. You can see it in the rise of

big businesses like Netflix, whose more

than 20 million subscribers pay a fee to

essentially share DVDs, or Zipcar, which

lifestyle in which you have lots of neighbors and little storage. But the real benefit of collaborative consumption turns out to be social. In an era

when families are scattered and we may not know the people down the street, sharing things-even with strangers we've just met onlineallows us to make meaningful connections. Peer-to-peer sharing "involves the re-emergence of community," says Rachel Botsman, coauthor of What's Mine Is Yours: The Rise of Collaborative Consumption. "This works because people can trust each other."

We yearn to trust and be trusted-one researcher has found that people get a spike of the pleasant neurotransmitter oxytocin when they're entrusted with another's goods. That's the beauty of a sharing society-and perhaps the reason it might prove more lasting than one built on ownership.



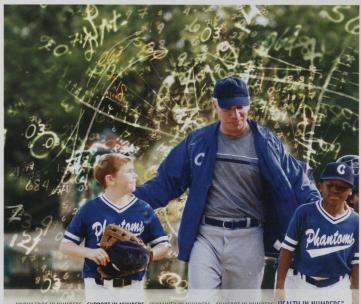
frankly, any letter at all? But don't despair. In the age of texting, old-fashioned romance may seem as antiquated as Old English. Yet technology can smooth the course of true love, whether it helps find it, nurture it or, if

need be, end it. Looking for your Romeo? The boom in Internet dating means there are more fish in the sea than ever before. Heading online is no longer seen as a last resort. Half the respondents in a survey by advertising giant Euro RSCG Worldwide said they knew someone who had met a partner online. With Internet dating, "you kind of go to a 'bar' and look at all potential mates very easily and scroll through them," says Patrick Markey, director of the Interpersonal Relationship Laboratory at Villanova University. For those too busy for the singles scene, online dating is a welcome shortcut, especially when profiles and photos let you be choosy about your choices.

Before you even go on your first date, you can Google and Facebook your potential love to your heart's content to make sure she's not hiding any skeletons, "What people know about each other gets revealed more quickly now,"







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says Robert Rosenwein, a professor of sociology at Lehigh University. "It may warn you off from some people so you don't have to spend time figuring out whether or not a person's right for you."

So once a potential Juliet is found, what's the way to a modern woman's heart? Try her cell p

ern woman's heart? Try her cell phone. If they're correctly organized, text messages are like stacks of love letters tied with ribbon—only now they're searchable. Paul Walker, 25, used texts to create the perfect anniversary gift for his girlfriend, Elizabeth. He created a calendar that tracked the chronology of their relationship, using only their text messages. As he was making the calendar, Walker, who lives in Brooklyn, converted his chats with



her into a text document—1,200 pages long. Though the mass of messages was intimidating, the finished calendar showed the arc of their relationship. "It ended up creating a rather emotional thing," says Walker. And an overjoyed girlfriend.

Technology below their potitive.

Technology helps not just the enamored though. In a study, len Bden and Alice Velsler discovered that those at tempting to thwart an unwanted love have new tools at their disposal. "We found that people use avoidance tactics to maintain a status quo" in a relationship, says Eden, a visiting assistant professor at Miami University in Ohio. "And computer-mediated technology is great for that because you can think about what you want to say." If a romance goes sour, your iPhone can

take all the effort out of writing a Dear John letter. In the magazine survey, 43% of women and 27% of men said they had been dumped via text message.

Especially in the case of breakups, it's tought to draw the line between efficient and impersonal communication. The key seems to lie in balancing your online and offline relationship, "Some people think it's 'add water, instant relationship' because we have access to each other's Facebook profiles," says Art Ramirez, an assistant professor of human communication at Arrizona State University. Technology just cuts out the small talk, letting you know if your partner is the right one for you.

And who needs Shakespearean declarations of love anyway? If Juliet had Googled Romeo, she would have found out he was a Montague and avoided all that fuss.

Using Business Savvy to Help Good Causes

BY BELINDA LUSCOMBE

BRIAN MULLANEY IS RAISING 525 MILLION TO SEND OUT 200 million pieces of junk mail. This qualifies as good news because all the letters he sends will be asking for money. Still not seeing an upside? Mullaney, who has a way with an envelope, believes he can fix at least five of the world's problems with his direct-marketing campaigns: clubfeet, burns, holes in the heart, catracts and hydrocephalur.

His plan would sound like the scheme of a hopeless idealist if

Those who make less than \$50,000 a year are predicted to give 2% more than those who make \$140,000



it weren't for Mullaney's track record. He's one of the founders of Smile Train, an organization that funds cleft-palate operations in countries where people are too poor to pay for them. Smile Train, set up in 1999, raised \$91 million in 2009 with a fundraising staff of four and had \$100 million in assets, according to tist sax records. The chartity claims that, because of its work, 600,000 people no longer have cleft palates.

Mullaney is a believer in scale, which is partly why he loves direct mail. From the more than 100 million letters a year Smile Train has sent out, he and his team have reams of data about what appeals generate the most money. He knows which of the 49 faces he tested on the envelopes—presurgery, postsurgery, children, grownups—elicited the best response. (American-looking kids, presurgery) He knows whether promising to never send another request for money is more effective than enclosing address labels. (It is, Smills Train's team analyzed the mail so thoroughly, they can not only predict the most generate.

ous ZIP codes, but they can also foretell that Alysons will give more than Suzies.

Now Mullaney, who has parted ways with Smile Train, wants to take those data-analyzing techniques and apply them to a new set of problems—which, like cleft palates, can be solved with surgery performed by local medical clinics at non-Western prices.

His new foundation, Surgery for the Poor, hope so be the invisible marketing and fundraising arm for a family of what he calls "charity brands." It will function like a wholesaler, a big donormaking factory gathering money cheaply for different causes, each under its own name. If the trends at Smile Train hold, spending 36 million on direct marketing the first year and \$60 million a year thereafter will yield a surplus by the second year, and by the fifth, \$146 million annually to spend on operations.

Why doesn't everybody do what Mullaney's doing? Similar techniques are used by credit-card companies. But, says Mullaney, whose background is in advertising. most foundations reject direct mail because it's expensive, annoying, and déclasé. Less than 0.5% of people respond to the initial letters. (But about 60% of those who do will give again sometime in the next two years.) Nonprofits are also wary of spending donors' money on getting more donors. "The whole charity industry is very dysfunctional when it comes to this stuff, because they're antibusiness and antimarketing," says Mullaney.

Raising lots of cash just for direct mail is not uncontroversial. Several fundraising experts said they'd never heard of a campaign so big. But Mullaney is meeting with billionaires to get the first \$25 million and claims he's 80% of the way there. And he's unapologetic about spending that much to raise more—or about the junk mail. "Dogoders run gout of 10 ch arrities. They don't understand why they have to market," he says. "It's time for marketers to step up."

TIME March 28, 2011

If You Have a Superior or Lennox Gas Fireplace

You Could Get a Protective Screen and a Warning Sticker from a Class Action Settlement

There is a Settlement involving Superior and Lennox brand single-pane scaled glass-front gas fireplaces. The lawase claims that Lennox Industries inc. Lennox Hearth Products Inc. and Lennox International Inc. ("Defendants") concealed that the glass fronts of these fireplaces get hot enough to cause serious burns. Defendants deny that they did not warn consumers and they deny they did anything wrong.

Who's Included?

Generally, with some exceptions, you are included if you live in the U.S. (including California) and own a home you bought for personal, family or household purposes that has one or more Superior or Lennox brand single-pane glass front gas fireplaces installed between February 6, 2004 and January 11, 2011. California residents who own a home for personal, family, or household purposes that has one or more Superior brand single-pane glass front gas fireplaces installed between March 1, 2003, and February S. 2004, are also included.

What Can You Get?

If you qualify, you can get a protective screen for your Superior or Lennox brand gas fireplace that will significantly reduce the risks of burns by preventing direct contact with the glass. The Settlement also provides additional information regarding the safety of your fireplace, as well as a warning sticker to be placed on your fireplace control.

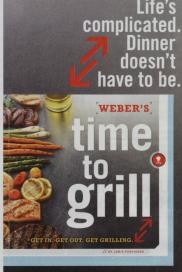
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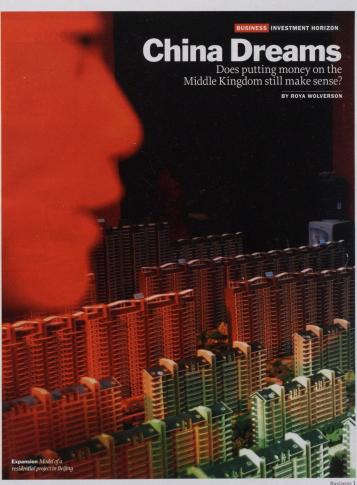


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Riding high Chongqing's skyline; luxury cosmetics for sale; Fu Chengyu, bottom center, CEO of China National Offshore Oil Corp., which posted an 86% increase in profit in 2010

OUGHLY THREE DECADES AGO, rising Japan was a national obsession in the U.S. Business gurus like Peter Drucker were declaring Japan "the most extraordinary success story in all economic history," and the U.S. was awash in fancy Japanese cars and newfangled electronics. Americans were at once frightened and wowed by the new global power (remember the movie Gung Ho?) and began flooding Japan with hotheaded investments, only to kiss their money goodbye when the country's speculative bubble burst. Today's obsession with China is eerily similar. And the parallels to Japanomania (a Far Eastern export economy, a cheap currency and a boom in stocks and real estate) raise questions about whether it all might end in tears.

The answer for investors depends on their time horizon. China is different from Japan. For one thing, its population is ro times Japan's. Its demographics are better. And whereas Japan's growth tumbled after less than a decade of hype, China (whose GDP of §5,9 trillion last year overtook Japan as the world's second largest economy) has

There are over 400 mutual funds with *China* in their name, more than triple the number five years ago

spent the past 30 years growing at nearly double-digit speed and is the world's biggest exporter. It is also the world's second largest oil importer and the biggest buyer of iron and copper, luring more resources into its economic engine than any other country in the industrialized world. Indeed, many analysts expect China to overtake the \$14.7 trillion U.S. economy in under a decade and to double its size in the next 30 years. Whereas Japan's middle class was reaching its peak when its economy rivaled the U.S.'s, China's rising middle class, with its anticipated economic might, has only begun to emerge. For all these reasons, famed investor Anthony Bolton, one of Britain's most successful fund managers, ditched retirement last year to move to Hong Kong and run a China fund.

Of course, for every China bull, there is a bear. Hedge-fund heavyweight Jim Chanos, who predicted the troubles that brought down companies like Enron and Tyco, thinks China is on the verge of collapse. A boom in Chinese bank lending over the past several years has driven up real estate prices and saddled Chinese lenders with a flurry of faulty loans, which, by Chanos' estimation, could lead to "Dubai times 1,000-or worse," China's undeveloped financial sector has prevented its citizens from growing their savings, and its laborers are becoming weary of paltry wages. That has put upward pressure on the prices of China's ultra-cheap factorychurned goods and turned up the heat on the country's authoritarian leaders.

This litany of troubles, combined with rising inflation, oil-price spikes and a sputtering global recovery, have already taken a toll on the market. U.S. stocks, far more diversified and sophisticated, outperformed Chinese stocks by 3 to 1 last year. even though China far outpaced the U.S. in economic growth.

So why would Americans want to invest in China? First off, it all depends on how long you're willing to stay in the game. Short-term investing in China is risky. But few economists would dispute that in the long term, China's overall trajectory is up. The regime is savvy enough to realize that to keep up its growth, it has to move away from cranking out cheap stuff sold in Walmart and improve the lot of its consumers. The Communist Party's latest five-year plan pledges to increase social services and workers' pay. And this is an autocracy that won't likely meet the same fate as those in the Middle East; Chinese youth are more intent on improving their lives through economic growth than abrupt political change, which mitigates political risk, says Edmund Harriss, manager of Guinness Atkinson's China & Hong Kong fund, based in London. Inflation is a problem, but the government is already tightening the spigot and has tackled far worse before. And China-unlike Japan, whose economic collapse came on the heels of a sharp rise in the value of its currency—is letting the yuan appreciate slowly, which keeps its cheap exports chugging while it works to rebalance its economy and put more spending money in the pockets of its people.

Indeed, investing in China is less a matter of deciding whether to do it than figuring out how and where to begin. Already there are over 400 mutual funds with the word China in their name, more than triple the number five years ago. A record number of Chinese companies listed on U.S. stock exchanges last year, though stock picking among firms with a reputation for dodgy accounting is a tricky business. Investing in China's currency is



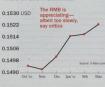
Should You Put Your Savings in a Chinese **Bank Account?**

Here's what I learned By Zachary Karabell

IN JANUARY, THE BANK OF CHINA quietly announced a startling new bank account available to U.S. citizens. At a Bank of China branch in New York City, an American can walk in, open an account and convert grubby dollars into renminbi (RMB), the currency of the hottest and perhaps most important economy in the world.

To get a better sense of what this is all about, I went to the Bank of China's main branch in New York City at Fifth Avenue and 48th Street. The office is fairly ornate and staid, a study in 1950s elegance. The staff couldn't have been more welcoming, and I was ushered over to a young Chinese American

Rise of the Renminhi



who walked me through the account opening process and answered all my questions. The biggest of which was: Why would anyone do this?

The Chinese currency is likely to appreciate in the years to come; Washington is vigorously lobbying for it. arguing that the Chinese have kept their currency value low to retain an unfair economic advantage. But the renminbi remains unconvertible. It does not float on international exchanges; you cannot trade it, and it does not fluctuate in value in the same global currency market that determines how many euros there are to the dollar and how many Mexican pesos you get for one Turkish lira. The new bank account does nothing to alter that, which makes opening an account in the U.S. denominated in RMB a bit, well, odd.

This seems all the more true when you find out you can't do much with the account: you can't write checks, withdraw renminbi from an ATM in any country, use a debit card or even deposit money into the account while in China.

"So what can I do?" I asked the very nice Bank of China representative.

"You can deposit a minimum of \$500, and it will be converted to RMB. If the value of the Chinese currency rises. your dollar account will increase in value. Then you can withdraw dollars. And it is insured by the FDIC."

"Why would I want to open an account that I can't really use?"

"Well, if the rate on your savings or money-market account is barely 0% and if the Chinese currency appreciates between 3% and 5% a year, as it is ex pected to, then you can have a savings account at the Bank of China that yields you much more than any equivalent domestic American savings account with the same FDIC protection." So there you have it: the Bank of

China has created a kind of savings account that has a strong likelihood of significantly outperforming U.S. savings accounts. The Chinese have been making cars, solar panels, electronics and furniture that outcompete U.S. alternatives; now they are creating better bank accounts?

Well, that depends on where you think the renminbi is headed. But you could do worse than park \$500 in an account insured by the U.S. government and tethered to the growth of the domestic Chinese economy. Renminbi savings bonds, here we come.

Business 4

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a possibility, but only in small doses and mostly through oddhall schemes, since the yuan is not traded internationally. (Thæ columnist Zachary Karabell did find a way into the remninbi via a new offering at the Bank of China. See sidebar) Broader international funds are also an option, depending on their amount of exposure to China. Many exchange traded funds try to mimic the country's overall growth by tracking various indexes, but their track records are thin, and their methods can be shoddy.

The best plays on China over the past few years have been the ones that put real China experts to work. To really know if a Chinese company is worth the investment, "you have to visit the factory," says New York City-based financial adviser Lewis Altfest. There are low-cost Chinaand Asia-focused mutual funds, such as the Matthews China fund or the Fidelity China Region fund, whose fund managers do just that. And like the Chinese economy, these funds have enjoyed double-digit growth over the past decade. The question is whether they can continue to pull it off. Stellar returns were a lot easier 10 years ago, when the world was less hip to emerging-market

growth. Bullish investors have poured nearly \$17 billion into Chinese stock funds in the past five years alone, leaving parts of the market overvalued. It's also worth remembering that the

S&P soo can be a China play. People in China are getting richer fast, and many of the West's top companies are already doing a brisk business there. Goldman Sachs predicts the Chinese will be buying a third of the world's luxury goods in less than a decade. All the better for swanky outfitters like Estée Lauder and Tiffany. More cars were sold in China last year than anywhere else, a much needed boon for U.S. companies such as Goodyear and Ford.

Goldman Sachs predicts the Chinese will be buying a third of the world's luxury goods in less than a decade

No one knows how fast China will open the floodgates to investors or foreign firms. The People's Republic still has a heavy hand in its economy, much to the chagrin of U.S. companies operating there. The regime's handover of power in 2012-when China's current Communist Party leaders retire and a new generation takes the helm-is another wild card, which could result in an even bigger role for the state. But in the case of China, at least, the assumption that a staterun economy cannot achieve long-term success may turn out to be wrong. As Goldman Sachs' Iim O'Neill warns, it would be naive to think that China's model is doomed simply because it is not the American way. Indeed, China often defies expectations.

Take the government's recent announcement that it wants to slow growth to make room for more pressing priorities, like the environment, social welfare and corruption. Not only does this fly in the face of Western economic norms; it separates China from the ranks of other emerging markets, Addressing those other priorities will require patience. But when thinking about a nearly 4,000 year-old civilization, it's worth taking the lone yiew.



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Got Yttrium? Probably not. Rare earths are key to tech, but China controls the supply. A U.S. mine is trying to change that

BY BRYAN WALSH

ARK KRISTOFF HAS RABE-FARTH which owned has an executive with Molycorp, which owned and operated the biggest American rare earth mine, near the Mojave Desert town of Mountain Pass, Calif. When Kristoff was a kid, his father gave him a tour of the mine in full production, at a time when the U.S. was a global leader in the mining of rare earths—a handful of metallic elements that are minor but

key ingredients in electronics. In the midigos, it seemed impossible to imagine that the U.S. would one day be dependent on imports for the raw materials that made its high-tech industries go. "They were mining the elements that put the red in every color television," says Kristoff, the 49-year-old CEO of metal-trading company Traxys.

But over the years, the U.S. saw domestic production of rare earths dwindle even as the metals became that much more important for high tech (think fiber optics and the iPad) and nascent clean tech (like solar panels and wind turbines). Tougher environmental rules and the costs associated with them led to the closure of rare-earth mines like Molycorp's Mountain Pass facility, while in China, low-cost labor and little in the way of government regulation meant that pro-

duction boomed. Today China produces 97% of the world's rare earths. The vulnerability of the rest of the planet to Chinese dealers became apparent last year, when Beijing-allegedly out of concern for the environmental cost of miningsuddenly restricted rare-earth exports, sending prices soaring. Chinese leaders now say they'll cut the export quota for rare earths 35% over the first six months of 2011, threatening a shortage that could put the brakes on the U.S.'s green growth. "The problems are real and serious," says Robert Jaffe, a physicist at the Massachusetts Institute of Technology. "If appropriate steps are not taken, we face possible short-term constraints of supply to what could otherwise be game-changing energy technologies.'

Rare earths are rare in the sense that they are not often found in concentrations that are economically worth mining, though China, the U.S. and Australia all have major reserves. Despite their scarcity, rare earths have become a vital part of the global economy, and the gray and silvery metals are only going to become more valuable. For instance, iPods contain small quantities of the rare earths dysprosium, neodymium, praseodymium, samarium and terbium. Fiber-optic cables need erbium, europium, terbium and yttrium. Rare earths serve a number of purposes. Praseodymium is used as a pigment, while neodymium is a critical component of

strong magnets. Rare earths are especially essential to clean-tech products, including solar panels, wind turbines and batteries. Each Chevrolet Volt-GM's new extendedrange electric vehicle-uses 7 lb. (3.2 kg) of rare-earth magnets, while each utilityscale wind turbine uses 661 lb. (300 kg) of neodymium. As the clean-tech industry has grown and as China has curtailed exports, the price of rare earths has skyrocketed. Dysprosium-one of the most critical rare-earth elements, with a name that means "hard to get" in Latin-has gone from \$6.50 per lb. (\$14.33 per kg) in 2003 to over \$130 per lb. (\$287 per kg). "Almost any clean-tech product or any

Business

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electronic gadget needs these elements in one way or another," says Craig Cogut, founder of Pegasus Capital Advisors, a private-equity firm that has invested in rare earths. "They are absolutely critical

to the growth of green tech and IT." If that's the case, why has the U.S., which as recently as 1995 was producing as great an amount of rare earths as China, all but abandoned the industry? The key reason is environmental. Mining rare earths and processing the ore can be a dirty, difficult business, in part because of the toxic acids needed for refining. At one point in the 1990s, the Mountain Pass mine was producing hundreds of gallons of wastewater an hour, mixed with radioactive elements from the thorium and uranium that are often found with rare earths. As U.S. environmental standards tightened, the costs of producing rare earths increasedeven as domestic mines were undercut by Chinese producers who seemed to operate with little or no oversight.

The environmental price of China's dominance has been horrific. Half the world's rare earths currently come from a single mine in the Inner Mongolian city of Baotou, where the landscape is stripscarred and toxic reservoirs are full of radioactive wastewater. Even if Chinese leaders weren't restricting rare-earth exports, the pace of global demand is beyond what China's environment can endurewhich helps explain why the government has cracked down recently on illegal mines. And as China's own clean-tech industries grow with the help of generous government subsidies, so has the country's internal demand for rare earths. "The Chinese put [Molycorp] out of business by

Where you can find rare-earth minerals













rare earths. Closed in 2002, it is now reopening and challenging Chinese leadership in the sector

cutting the price," says Kristoff. "But as they use more rare earths themselves, they are restricting their exports."

That's left an opening for new suppliers-including one that's come back from the dead. Molycorp, the original operator of the Mountain Pass mine, was purchased in 1977 by the oil company Unocal, which shut down the rare-earths facility in 2002. Unocal was bought by Chevron in 2005. A group of private-equity investors, including Pegasus, Traxys, Goldman Sachs and Resource Capital Funds, purchased the Mountain Pass mine from Chevron in late 2008 and re-established Molycorp as a private company. (Goldman later sold its interest.)

Flush with funds, Molycorp purchased the Mountain Pass mine from Chevron in late 2008 and reopened it. The new owners intend to spend \$500 million cleaning up the mine and refurbishing the processing facility, with the goal of producing 40,000 metric tons of rare-earth ores annually within the next few years. Molycorp executives believe the mine could produce 20% to 25% of the world's rare-earth products by 2014. "We will make a difference," says Mark Smith, Molycorp's CEO.

To meet U.S. environmental standards, Molycorp is constructing an on-site natural gas plant to cleanly generate the electricity needed for rare-earth processing. The company will also recycle the mining wastewater, using it to produce the hydrochloric acid and sodium hydroxide needed to separate the rare earths during processing. The new facility will use just

10% of the water that was needed during the Mountain Pass operation's hevday. "We will be the cleanest rare-earth mine in the world," says Cogut, "This is going to be a combination of quantity and quality."

The market is already impressed. Molycorp successfully went public in July 2010, its stock price rising from \$14 a share to more than \$45, putting the company's value at some \$4 billion. And Mountain Pass isn't the only rare-earth mine looking to cut in on the Chinese. The Sydney-based company Lynas is opening a new mine on Mount Weld in Western Australia, with plans to produce 22,000 metric tons of rare-earth ore a year by 2012. Element Resources is scoping a potential mine in Bear Lodge, Wyo., which could produce as much as 10,000 metric tons of ore a year. "This is about ensuring the sustainability of sustainability," says Terry Tamminen, the former head of California's environmental protection agency and a Pegasus adviser.

For the U.S., breaking China's hold on rare earths isn't just good business. It's also a matter of national security. Electronic military equipment depends on rare elements like dysprosium, used in heat-resistant magnets. Some members of Congress want the U.S. to file a complaint with the World Trade Organization about China's rare-earth-export restrictions. But the only sustainable solution will be renewed domestic production of rare earths, perhaps with government help. If a global green economy is going to truly take off, rare earths can't remain rare much longer.



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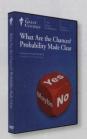
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The Culture

68 POR CHART Spidey's sixth sense/70 THEATER Mormons on Broadway 74 FOOD McDonald's for adults/77 TUNED IN The NPR sting/81 BOOKS Mysteries and histories

Pop Chart





BAD WEEK

The multitalented mogul surpassed the mighty Jay-Z in a Forbes magazine list of the richest hip-hop stars.

After the Internet laughed at the trailer for his film Things Fall Apart, so Cent tweeted off-color

TELEVISION Nickelodeon Nostalgia

Congratulations. children of the '90s: you're officially old. This fall, cable channel TeenNick will air a nightly block of vintage Nickelodeon shows like Rugrats, Salute Your Shorts and All That, which stars a pre-SNL Kenan Thompson. Network execs made the move after noticing an online fan following. The shows will air from midnight to 2 a.m., so a new generation of kids probably won't be awake to watch Clarissa explain it all.

THEATER **Spidey Deferred**

On March 11, shortly after announcing the departure of director Julie Taymor, producers of Spider-Man: Turn Off the Dark again pushed back the opening of the troubled Broadway musical, this time to June 14. Will the sixth time be the charm?













MOVIES

Sub Remake Scuttled

Director Robert Zemeckis isn't living a life of ease these days after the epic fail of Mars Needs Moms, which was made for Disney by Zemeckis' production company. After a disastrous opening weekend (the \$150 million Moms took in just \$6.9 million in the U.S.), Disney torpedoed Zemeckis' next producing venture, a Yellow Submarine remake that would have used the same animation style as Moms. Zemeckis is now free to see if another studio will float his project.

VERBATIM

'Yesterday was

Thursday, Thursday. Today is Friday, Friday. We, we, we so excited.

REBECCA BLACK, teen singer, in her viral music



Kate Moss returned to the runway to close out Louis Vuitton's fall-fashion show in Paris. But she did so with cigarette in hand, cheekily ignoring both a French ban on indoor smoking and Britain's No Smoking Day.

5 THINGS YOU THIS WEEK

1. Charlie Sheen ever going away. His to cities across the U.S.

2. Bob Dylan's global reputation.

3. Red Dawn's global box office. The '80s remake has changed nese to North Korean.

4. The prospect of a classy Snooki. The

Monday Night Raw. 5. The 2011-12 football season.

Oh, wait-yeah,



INTERNET IDIOCY **Deen Meme**

Apparently the one healthy thing about Southern-food dovenne Paula Deen is her sense of humor. She recently called the blog Paula Deen **Riding Things** (the title is selfexplanatory) the "funniest thing since Where's Waldo."

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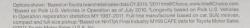
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Bigger, Live and Uncut The South Park guys take their act to Broadway

By Richard Zoglin

THEF PARKER AND MAIT STONE, THE PERFETRAtors of the hit cartoon series South Park, have taken potshots at everything from Scientology to Barbra Streisand, packed more fatr jokes and four-letter words into small spaces than any other fillmmakers over the age of 10 and risked death threats for an episode last year in which they poked fun at the Prophet Muhammad. But only when they got to Broadway did they find something they hadn't experienced since their days as renegade student fillmmakers at the University of Colorado: no adults upervision.

"On Comedy Central we have standards and practices," says Stone, sitting with Parker at the back table of a restaurant next door to the Eugene O'Neill Theatre, where their new musical, The Book domrone, is in previews. "They have to answer to advertisers, and we have to answer to advertisers, and we have to answer to them. And then for the film stuff, we have the MPAA [ratings] that we have to deal with. But here, it's basically me and Trey and our friends in the theater next door putting on a show, Other than New York indecency laws or something, that's it."

The indecency police, if there are any left in New York City, might blanch at some of the cruder moments in The Book of Mormon: the flippant talk by Ugandan villagers about AIDS and baby rape or the fellow who keeps complaining about "maggots in my scrotum" or the upheat "Hakuna Matata"—style ditty that translates as "F--- You, God." But it's all packaged in such a buoyant, old-fashioned Broadways ong, and-dance show that, once past the four-letter words, you just might mistake this for a revival of Oklahoma!

It seems like an epic mismatch: Parker and Stone, the bad boys behind TV's most notoriously potty-mouthed cartoon show, bringing their irreverent act to the family-friendly environs of Wicked and Jersey Boys. But it shouldn't be all that surprising. For one thing, Broadway has been fervently trying to attract younger, hipper audiences, with shows like Aneme Q, the profane puppet musical that swept the Tony Awards in 2004—and whose co-treator Robert Lopez is Farker and Stone's collaborator on The Book of Mormon. Broadway now opens its doors to rap musicals and raunchy stand-up concerts and drug-fueled punk-rock extravaganzas like last season's American Idiot. How freewheeling is it getting? Scheduled to open next month is a comedy called The Motherfu-er with the Hat. A few years ago there would have at least been more hyphens.

But the other reason not to be surprised is that Parker and Stone, for all their renegade street cred, are closet lovers of the classic Broadway musical. Parker, 41, grew up in a small Colorado town watching Rodgers and Hammerstein revivals by the local community theater, the Evergreen Players. He went on to star in high school musicals, majored in music at the University of Colorado and transferred his musical theater passion to his college friend Stone (a math major, two years younger), initiating him but aking him to see Miss Sadon in London.

While still in college, they made a film together called Camiblat The Musical, based on the true story of a prospector in the 1870s who survived his snowbound expedition by eating his comrades. Not long afterward, the pair was discovered by Holly wood. Signed to a script deal by producers Scott Rudin (who's now one of two lead producers of their Broadway show, along with Anne Garefino), Parker came up with another musical idea: Des Moines, about an insurance man in a small lowa town who sings and dances in a Rodgers and Hammerstein idyll—until he's transferred to the big, bad city



Missionaries, dance! The Book of Mormon, the new musical from Parker, far right, and Stone



of Des Moines and the music comes to a screeching halt. Rudin didn't like it.

In 1997, however, the two hit it big with South Park, the Comedy Central cartoon show about a quartet of profamity-spewing third graders, which has provided a vehicle to satirize everything from self-important Hollywood stars to Face-book mania. It also spawned a 1999 feature film, South Park Bigger, Longer and Uncut, a cheerily old fashioned (if foulmouthed) musical that nabbed an Oscar nomination for Best Song—and a fan letter for its score (co-written by Marc Shaiman) from Stephen Sondheim.

Parker and Stone have long been fascinated with Mormonism, which they first took on in their 1998 movie Orgazmo, about a Mormon missionary who becomes a porn star, and later in a 2003 South Park episode in which a Mormon family moves into the neighborhood and disarms everyone with its sheer niceness. Then, while making their 2004 puppet movie Team America: World Police, Parker and Stone went to see the musical Avenue O and met the show's co-creator Lopezwho not only was a big South Park fan (he credited the show in his Playbill bio) but also had been toying with his own idea of a musical about Mormon Church founder Joseph Smith. The three got together and began developing the musical in spurts, in between the six or seven months a year that Parker and Stone were absorbed in South Park.

As a creative team, Parker and Stone (dressed in complementary black and white T-shirts, respectively) seem perfectly in sync-though Stone is the more intense and voluble, Parker the more laid-back and contemplative. (He writes most of the music, and he co-directs The Book of Mormon with Broadway vet Casey Nicholaw). "Matt is fierce. He just goes for it," asys Garefino, their longitume South Park producer. "Trey goes for it too but does it in a sweeter way."

But neither comes off as a Broadway insurrectionsis. "The highest thing we were going for, and this sounds kind of corny, but we wanted to do a traditional Broadway musical," says Stone. "Not some new take—Oh, we're going to do a musical for people who don't like musicals, none of that. We wanted to do a busical for some of the wanted to do the biggest version of a Broadway musical, with this kind of crazy, unconventional material. And that seemed like the hardest challenge and the craziest and the most subversive thing to do."

They Wrote the Book How Parker and Stone took Hollywood



ORGAZMO, 1998
Mormons, they found early
on, are good material. In this film
(starring Parker, right) a Mormon
missionary becomes a porn star



SOUTH PARK, 1997.
Through the eyes of four pottymouthed Colorado kids, their hit cartoon series skewers everything from Streisand to Scientology

TEAM AMERICA: WORLD POLICE, 2004
The duo's film about a global terrorism-fighting force features cameos by marionette versions of George Clooney and Kim Jong II



In truth, The Book of Mormon is less incendiary than an average prisade of South Park. It focuses on a team of fresh-faced Mormon missionaries who are sent to Uganda to try to convert a band of villagers beset by poverty and pestience. Though the show makes mild fun of the wackier elements of the Mormon creation story—Smith's discovery of holy golden tablets in upstate New York—it steers clear of more hot button issues associated with the religion, like polygamy. (A) joke on the topic was once in the show, says I opez, but it was cut after "it didn't get al augh.")

Two weeks before the show's opening, Parker and Stone were still tinkeringmoving scenes around and adding song lyrics. They've had to adjust their seat-of-the-pants working method from South Park-where most episodes are conceived, written, animated and edited in the space of a week-to the demands of dealing with real live actors. "In South Park we can say, Let's try this. We'll go in and look at it, and then we can change it in half an hour. It's not a big deal," says Parker. "But I've had to learn that, Oh, you can't give the actor a new line too many times. He's going to start getting confused. So you have to make sure vou've thought about it."

The Los Angeles-based pair has had fewer problems adapting to living in New York City, Stone and his wife bought an apartment in Chelsea, and even Parker, who is more comfortable in open spaces, is thinking of keeping the midtown apartment he and his girly friend rented for the duration. But first, just a week after The Book of Mormon's March 24 opening, they'll be heading back to LA. to face the usual scramble as they churn out the final episodes for South Park's 15th season.

"Every season, we run out of ideas about two shows in," says Parker. "I hope some funny things happen." They've already rejected one ripe target: "Charlie Sheen went from, like, funny for me last week to just sad this week," says Stone. On the other hand, their new Broadway excursion just might have opened up new territory. In November they went to see the third preview of Spider-Man: Turn Off the Dark, the highflying, trouble-plagued musical that has just postponed its opening for the sixth time. Says Parker, charitably: "Our third preview didn't go so great either. Remember, he's the sweet one.



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Food



Send Out the Clowns. As McDonald's focuses on coffee-drinking adults, Ronald becomes a side order

By Josh Ozersky

UNLIKE HIS RIVAL JAKED FOCLE, WHOSE message of wellness has helped Subway overtake the Golden Arches as the largest restaurant chain in the world, Ronald McDonald doesn't look like the picture of health these days. When a report recently surfaced that the 48-year-old clown was being retired, Ronald haters everywhere felt vindicated. Last year, the watchdog group Corporate Accountability International called for Ronald's banishment, and down-with the-clown

sentiment outside the U.S. is so extreme that one Finnish group beheaded the hapless mascot in effigy in an especially gruesome piece of political theater.

Ronald's apparent dismissal seemed less like an attempt to placate progressives (or people who fear clowns) than a reaction to increasing pressure on the chain to stop marketing high-fat, processed food to children, whose escalating girth has become a major concern in the U.S. In 2009 a New York City councilman proposed a ban on fast-food chains within one-tenth of a mile (160 m) of any school; San Francisco has outlawed the Happy Meal. And while McDonald's subsequently issued a clarification that Ronald might still be called on now and then to speak for the brand, the company confirmed that he had become less important to its overall marketing plan. Asked when Ronald was last featured in a commercial, Danya Proud, director of U.S. communications for McDonald's, told Time, "I don't even know. I'd have to look into it ... We use him differently today than we have in the past, but he continues to have a role that's right for him in our business."

And so the redheaded companion of the Hamburglar and Mayor McCheese joins other legacy mascots who have fallen into symbolic limbo. These characters never get fired outright, just put in storage and occasionally dusted off for nostalgiafilled appearances. But if you were to gain access to McDonald's marketing department, you might find that it was not his connection to kids that put Ronald on the firing line; it was his disconnection from McDonald's increasingly lucrative base of adult consumers, the ones who have made the chain's McCafé line-a seemingly late entry into the specialty-coffee market-wildly successful. McDonald's saw in Starbucks a mighty force that might be absorbed, Borg-like, into the McDonald's galaxy, but Ronald is too corny and down-market to shill lattes (and wraps and smoothies). While kids are still important, McDonald's has made it clear that it wants the rest of the family too, and the adult customer doesn't have a lot of use for clowns or trippy live-action cartoons with purple shake monsters.

It's a move McDonald's has perfected time and again. It has followed every lead that's ome along in the quick service business, from drive through to movie tie ins, and has done it all far more successfully than the original innovators. Now the company is well on its way to beating Starbucks at its own game, with McCafes driving revenue growth in six of the past seven quarters to a record high of \$24 billion in sales last year. With that kind of money at stake, there's no room for clowning around.



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Tuned In



Hatchet Job. A video hit piece makes NPR and its enemy look bad

By James Poniewozik

ON MARCH 9, THE LIST OF RADIO JOBS lost to video got a little longer. NPR, under siege by conservatives who want to zero out public-media funding, ousted its CEO after a video sting by a group run by conservative provocateur James O'Keefe.

In the video, NPR fundraiser Ron Schiller and a colleague met with two members of a fictional Muslim group dangling a sy million donation. Prodded by the "donors," Schiller said liberals "might be more educated" than conservatives, described Republicans as "anti-intellectual" and said the GOP had been "hiakede" by the "racist" Tea Party.

Or did he? After the tape became national news, and after NPR hastily sacrificed its CEO to appease critics, a video editor at the Blaze—a website founded by Fox News host Glenn Beck—compared the edited sting video and the two-hour original, also posted online.

Schiller did say some bad things, the Blaze found. But the short video took them out of context, like a bad reality show, and made them sound worse. It transposed remarks from a different part of the meeting to make it seem as if Schiller were amused by the group's 'goal'" of spreading Shari'a law. It left examples of his complimenting Republicians on the cutting room floor.

And that Tea Party quote? Schiller was, for at least part of it, describing the views of some Republican friends. Somehow—oops!—O'Keefe left that bit out.

The full video hardly clears Schiller. His opining about liberals' education and conservatives' anti-intellectualism, for instance, still comes of a smug and would have hurt NPR regardless. The network was still feeling backlash from fring luan Williams last fall after he said on Fox that some Muslims on planes made him nervous) But the full picture shows O'Keefé's partisan hit job—trying to link NPR to liberal elitism and scary Muslims—was manipulative too.

And it shows how sadly easy it is to take advantage of the attention span and metabolism of media today. O'Keefe's

O'Keefe's tactics undercut his case. If he wants to be rid of public media, is this what he wants to replace them with? sound bites got picked up everywhere, not least on public radio. (On my blog, I posted about the short video and NPR's response when the story broke; I eventually watched and wrote about the full video but wish I had sooner.)

O'Keefe did post the full video, though his checkered history almost required it. His video scam on community organizer ACORN was shown to be deceptively edited (he didn't volunteer the full source then), he pleaded guilty to attempting to other a U.S. Senator's office in disguise, and another failed scam involved trying to sexually humilitate a CNN reporter.

By the time anyone scrutinized his NPR video, O'Keefe had already claimed a scalp and framed the narrative (snooty liberals insult you on your dime). While his manipulations would have been a firing offense at a news outlet with integrity, they only made O'Keefe more of a hero to his fans: he was making a bigger point, and, hey, the libs and the MSM do it tool

But shamelessness is not the same as honesty. Any narrative has to be edited: a film, a book, this column. You can do it in good faith to concisely tell a story (as NPR generally does, whatever its leanings). Or you can enlist your scissors for a sweetened "larger truth" while feeding the cynical idea that everyone does it.

There are plenty of valid arguments you could make against public media funding without being misleading: that donors can pick up the slack, that there are af ar more media options today, that NPR and PBS are boutique products we can't afford. There are plenty of valid counterarguments: that it's a tiny sliver of the budget, that private markets don't always pay for important news foverage, that cuts will hit rural red-state audiences far harder than urban elites.

But we should have that argument on honest terms. And O'Keefe's tactics undercut his case. If he wants to be rid of public media, is this what he wants to replace them with? I don't mean ideological media; the fact that Glenn Beck's website exposed the sleight of hand shows that you can be opinionated yet fair. I mean media used as a weapon. To the James O'Keefes of the world, the news is a war in which mainstream journalists must cautiously wield X-Acto knives and he gets to bring an axe.



ARICEPT 23 mg. For moderate to severe Alzheimer's disease.

You've shared so much with your loved one through the years. While you're realistic about the nature of Alzheimer's, as their caregiver, you want to do what you can. If your loved one is taking ARICEPT (donepezil HCl) 10 mg, ask the doctor if ARICEPT 2 mg may help.

ARICEPT 23 mg was compared to ARICEPT 10 mg in a large clinical study of patients with moderate to severe Alzheimer's disease. ARICEPT 23 mg showed improvement over ARICEPT 10 mg on cognitive symptoms, though it did not show improvement on overall patient functioning. In the study, more people who took ARICEPT 23 mg experienced increased side effects.

ARICEPT is thought to work by increasing the amount of acetylcholine, allowing more of this important chemical to remain in the brain.

It's important to remember that while ARICEPT may treat the symptoms of Alzheimer's disease, it is not a cure. All patients with Alzheimer's disease will get worse over time, even if they take ARICEPT 23 mg.

Ask the doctor today about giving your loved one ARICEPT 23 mg.

Learn more at aricept.com

INDICATION AND DOSING

ARICEPT® (donepezil HCl) is a prescription medicine to treat mild, moderate and severe Alzheimer's disease. Before starting on ARICEPT 23 mg/day, patients should be on ARICEPT 10 mg/day for at least 3 months. The starting dose of ARICEPT is 5 mg/day and can be increased to 10 mg/day after 4–6 weeks. Please take ARICEPT as prescribed by the doctor.

IMPORTANT SAFETY INFORMATION

ARICEPT is not for everyone, including people who are allergic to any ingredients in ARICEPT or to medicines that contain piperidines.

Tell the doctor if your loved one takes nonprescription or prescription medicines, including those used to treat Alzheimer's or Parkinson's disease; anticholinergic medicines, such as allergy or cold medicine; medicines to treat bladder or bowel spasms; or certain asthma medicines.

ARICEPT may cause slow heartbeat and fainting. This happens more often in people with heart problems. Call the doctor right away if the patient faints while taking ARICEPT. People may also have seizures while taking ARICEPT. They may also have difficulty passing urine. Lung problems, including asthma, may worsen with the use of ARICEPT. Tell the doctor that the patient takes ARICEPT before they have any procedure that may require anesthesia, including dental and medical procedures or surgery.

People at risk for stomach ulcers or who take certain other medicines, such as aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs), should tell their doctor because serious stomach problems, such as bleeding, may get worse.

In a study, more side effects were seen with ARICEPT 23 mg than with ARICEPT 10 mg. Many more people taking ARICEPT 23 mg experienced nausea and vomiting than those taking ARICEPT 10 mg. These side effects may get better after the patient takes ARICEPT for a while. Other side effects that were seen more often with ARICEPT 23 mg were stomach ulcers, gastrointestinal bleeding, and weight loss. People of lower weight (less than 121 lbs) may have increased nausea, vomiting, and weight loss when taking ARICEPT 23 mg.

Other side effects of ARICEPT may include diarrhea, difficulty sleeping, vomiting, or muscle cramps. Some people may feel tired or may have loss of appetite.

You are encouraged to report negative side effects to the FDA. Visit fda.gov/medwatch or call 1-800-FDA-1088.

Please see important Patient Information on next page. For more information, visit aricept.com or call 1-866-4-ARICEPT.





ARICEPT PATIENT PACKAGE INSERT

ARICEPT® (Air-eh-sept) (donepezil hydrochloride) tablets

. Tablets: 5 mg, 10 mg, and 23 mg ARICEPT® ODT (Air-eh-sept oh-dee-tee)

(donepezil hydrochloride) orally disintegrating tablets

. ODT Tablets: 5 mg and 10 mg

Read the Patient Information that comes with ARICEPT before the patient starts taking it and each time you get a refill. There may be new information. This leaflet does not take the place of talking with the doctor about Alzheimer's disease or treatment for it. If you have questions, ask

What is ARICEPT?

ARICEPT comes as ARICEPT film-coated tablets in dosage strengths of 5 mg, 10 mg, and 23 mg, and as ARICEPT Orally Disintegrating Tablets (ODT; 5 mg and 10 mg). Except where indicated, all the information about ARICEPT in this leaflet also applies to ARICEPT ODT

ARICEPT is a prescription medicine to treat mild, moderate and severe Alzheimer's disease. ARICEPT can help with mental function and with doing daily tasks. ARICEPT does not work the same in all people. Some people may:

· Seem much better

Get better in small ways or stay the same

Get worse over time but slower than expected

· Not change and then get worse as expected

ARICEPT does not cure Alzheimer's disease. All patients with Alzheimer's disease get worse over time, even if they take ARICEPT.

ARICEPT has not been approved as a treatment for any medical condition

Who should not take ARICEPT?

The patient should not take ARICEPT if allergic to any of the ingredients in ARICEPT or to medicines that contain piperidines. Ask the patient's doctor if you are not sure. See the end of this leaflet for a list of ingredients in ARICEPT

What should I tell the doctor before the patient takes ARICEPT? Tell the doctor about all the patient's present or past health problems. Include

· Any heart problems including problems with irregular, slow,

or fast heartbeats

Asthma or lung problems A seizure

Stomach ulcers

Difficulty passing urine Liver or kidney problems Trouble swallowing tablets

· Present pregnancy or plans to become pregnant. It is not

known if ARICEPT can harm an unborn baby Present breast-feeding. It is

not known if ARICEPT passes into breast milk. ARICEPT is not for women who are breast-feeding.

Tell the doctor about all the medicines the patient takes, including

prescription and non-prescription medicines, vitamins, and herbal products. ARICEPT and other medicines may affect each other.

Be particularly sure to tell the doctor if the patient takes aspirin or medicines called nonsteroidal anti-inflammatory drugs (NSAIDs). There are many NSAID medicines, both prescription and non-prescription, Ask the doctor or pharmacist if you are not sure if any of the patient's medicines are NSAIDs. Taking NSAIDs and ARICEPT together may make the patient more likely to get stomach ulcers.

ARICEPT taken with certain medicines used for anesthesia may cause side effects. Tell the responsible doctor or dentist that the patient takes

ARICEPT before the patient has: surgery

medical procedures

dental surgery or procedures

Know the medicines that the patient takes. Keep a list of all the patient's medicines. Show it to the doctor or pharmacist before the patient starts a new medicine.

How should the patient take ARICEPT?

- . Give ARICEPT exactly as prescribed by the doctor. Do not stop ARICEPT or change the dose yourself. Talk with the doctor first. Give ARICEPT one time each day. ARICEPT can be taken with or
- ARICEPT 23 mg tablets should be swallowed whole without the tablets being split, crushed or chewed.

- . ARICEPT ODT melts on the tongue. The patient should drink some water after the tablet melts
- If you miss giving the patient a dose of ARICEPT, just wait, Give only the next dose at the usual time. Do not give 2 doses at the same time. · If ARICEPT is missed for 7 days or more, talk with the doctor before

starting again. If the patient takes too much ARICEPT at one time, call the doctor or poison control center, or go to the emergency room right away.

What are the possible side effects of ARICEPT?

ARICEPT may cause the following serious side effects:

· slow heartbeat and fainting. This happens more often in people with heart problems. Call the doctor right away if the patient faints while taking ARICEPT.

more stomach acid. This raises the chance of ulcers and bleeding, especially when taking ARICEPT 23 mg. The risk is higher for patients who had ulcers, or take aspirin or other NSAIDs.

worsening of lung problems in people with asthma or other lung disease. seizures

· difficulty passing urine.

Call the doctor right away if the patient has:

· fainting. bowel movements or stools · heartburn or stomach pain that look like black tar

that is new or won't go away. new or worse asthma or nausea or vomiting, blood in the vomit, dark vomit that seizures.

looks like coffee grounds. · difficulty passing urine.

The most common side effects of ARICEPT are:

 nausea muscle cramps · diarrhea feeling tired

not sleeping well vomiting

· not wanting to eat

These side effects may get better after the patient takes ARICEPT for a while. This is not a complete list of side effects with ARICEPT. For more information, ask the doctor or pharmacist,

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

How should ARICEPT be stored ?

Store ARICEPT at room temperature between 59° to 86°F (15° to 30°C).

Keep ARICEPT and all medicines out of the reach of children.

General information about ARICEPT Medicines are sometimes prescribed for conditions that are not mentioned in this Patient Information Leaflet. Do not use ARICEPT for a condition for which it was not prescribed. Do not give ARICEPT to people other than the patient, even if they have the same symptoms as the patient, as it may

This leaflet summarizes the most important information about ARICEPT. If you would like more information talk with the patient's doctor. You can ask your pharmacist or doctor for information about ARICEPT that is written for health professionals. For more information, go to www.ARICEPT.com, or call 1-800-760-6029

What are the ingredients in ARICEPT?

Active ingredient: donepezil hydrochloride Inactive ingredients:

- ARICEPT 5 mg and 10 mg film-coated tablets: lactose monohydrate, cornstarch, microcrystalline cellulose, hydroxypropyl cellulose, and magnesium stearate. The film coating contains talc, polyethylene glycol, hypromellose, and titanium dioxide. Additionally, the 10 mg tablet contains yellow iron oxide (synthetic) as a coloring agent
- ARICEPT 23 mg film-coated tablets; ethylcellulose, hydroxypropyl cellulose, lactose monohydrate, magnesium stearate and methacrylic acid copolymer, Type C. The reddish color film coating includes ferric oxide, hypromellose 2910, polyethylene glycol 8000, talc and titanium dioxide
- ARICEPT ODT 5 mg and 10 mg tablets: carrageenan, mannitol, colloidal silicon dioxide, and polyvinyl alcohol. The 10 mg tablet contains yellow iron oxide (synthetic) as a coloring agent.

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Books

Started Early, Took My Dog Reagan Arthur Books/ Little, Brown: 371 pages

Unfamiliar Fishes Riverhead Books; 238 pages

Death Becomes Her. Kate Atkinson's new mystery brings a murdered woman to life

By Lizzie Skurnick

CALLING A MYSTERY NOVEL A LITERARY ONE is increasingly being taken as a shot by both camps. But that is the conundrum facing the dedicated fan of Kate Atkinson, whose Started Early, Took My Dog, the fourth in her gumshoe Jackson Brodie series, turns prostitution, the poems of Emily Dickinson, England's crisis of shoplifting and snippets from The Tempest into something rich—and deeply strange.

It's the aftermath of the financial crash, and in a mall in decidedly unglamorous Leeds, England, former cop and bruiser Tracy Waterhouse has downsized to collecting her pension while working security. Across the pond, chirpy adopted New Zealander Hope McMaster has engaged Jackson to find her birth mother, communicating with him mainly in exclamation-point ridden texts. Meanwhile, aging actress Matilda "Tilly" Squires, overshadowed by a Judi Dench-like rival, has gone positively

D list, glad even for a supporting role on the cheesy Collier, a prime-time cop drama on which Jackson's ex and baby mama Julia appears.

Entire ocuvres would collapse under a lighter load, But Atkinson is like a literary peddler, nimbly picking through her enormous, lumpen store of goods for the pertinent item. When an impulsive act of Tracy's one day at the mall links her to Jackson and Tilly, Atkinson slowly reveals how they were already linked by the long ago death of a prostitute, Carol Braithwaite, whose brutal murder in 1975 sets the events of the day, and the novel that follows, in motion.

This is Atkinson's territory: a postindustrial Britain littered wwith murdered women, their vanished progeny and the living who can't let them go. Ghost abound, from Jackson's long-dead murdered sister Niamh to Tracy's mother, dead, to the delight of her daughter, to characters' imagined conversational partners. (Even someone to know the provenance of a quote) The novel itself is haunted by Collier, whose cheesy crime scenes and anonestic, coked-up lead are a foil for a young Tracy. As a recruit, she watches a colleague dub the bloodied corpse of Carola "good time" girl. "Doesn't look like she's having a very good time." Tracy murmurs.

Atkinson is no thrillist on the subject of female corpses. She's an advoate for clearly delineating the types of violence against women. The violence she describes can be rather quotidian and even comical, as when Tracy wonders, as the waistband of her unforgiving pants cuts her in half, why she always swells during the day. (This mystery, unfortunately remains unsolved,) But it also includes the grim death meted out to Carol, who—good-time girl that she was—was only, like Jackson, Tilly and Tracy, seeking a family.

Atkinson's brilliant plotting coupled with extraordinary exposition may keep her at the forefront of the literary mystery overlap. But her most skillful combination is far more subtle. In this day of bloody girls splayed across screens and book covers, Atkinson writes about violent crime against women without being salacious, but she never holds back from entertaining.





Island Life

Sarah Vowell's first visit to Hawaii was to see the U.S.S. Arizona Memorial, a monument to Pearl Harbor. "I didn't come here for direct sunlight or "fun," she writes. "I came to Hawaii because it had been attacked."

Why did the author of the quirky Americana books Assassination Vacation and The Wordy Shipmates keep going back? In Unfamiliar Fishes, Vowell argues for Hawaii's story as a microcosm of the U.S.'s. There's an indigenous culture suppressed by **Bible-thumping Chris**tians and land exploited for profit and military advantage by American haoles (the white-faced "unfamiliar fishes" who annexed the Islands in 1898). But it's also a place where spiritual adventurers found a bountiful new homeland. where cultures coexist and where a future President was born to globetrotting parents.

As Vowell unravels
"Hawaii's bit part in the epic of American global domination," she finds an object lesson. Those who opposed the U.S.'s part in the 2003 invasion of Iraq lamented that
"this is not who we are."
But Hawaii, Vowell writes, is a reminder that
"from time to time, this is exactly who we are."
—INDRANI SEN



Can Buy Me Love. In which I find my true calling: bringing soul mates together for large sums of money

HERE'S NO UPSIDE TO SETTING people up. At best, you're stuck writing a speech for a wedding; at worst, you find out your friends cry during sex. When I found out you could get paid to set people up, however, I got a lot more interested. I asked Barbie Adler, CEO of Selective Search, to let me spend a day setting up men who pay her a minimum of \$20,000 a year to set them up on dates with women who want to be set up with men who pay \$20,000 a year to be set up on dates. This was the kind of love I could deliver.

I got to Barbie's office in Chicago, where I was the only man employed. All the women who interview her clients were attractive and had posters and sculptures about love in their office. This was not the tone I was going to set with my clients. I was just going to ask them if they were boob men or butt men and get to work.

But Barbie is a former executive

recruiter, so she and vice president Nicole Wall gave me a 15-page form to fill out for each client that included questions about charity work, health, exercise habits and past relationships. There was another form for me to fill out after each prospective date left, and it included blank lines for items like Rate her face on a scale of 1 to 10. How is her skin?. What size do you estimate she is on top? and What size do you estimate she is on bottom? This system has led to 1,221 marriages and 417 babies; 88% of Barbie's clients meet their eventual spouse in the first nine months. These are, unbelievably, even better results than ABC's The Bachelor gets.

Normally, it would take a year of training before I got to set anyone up, and then I would spend many hours interviewing

the client before combing through the 140,000 women in the company's database and reinterviewing some of them with him in mind. But I'm not normal people. In 10 hours, without a break for food, I interviewed eight women and two men. The women don't pay anything, but they aren't assured of a date, just like in the real world. To my shock, none of them seemed like gold diggers. They had great jobs, went to impressive colleges and had other



priorities-namely, that they would under no circumstance date a man under 6 ft. (180 cm) tall. He could be bald, fat and jobless as long as he was at least one standard deviation above average height. It makes absolutely no sense that we're the gender that doesn't wear high heels.

Before my interviewees entered or left my office. I had to call the receptionist to run traffic control to make sure that no one else saw them. Barbie said this was done to ensure client privacy, but I think it was just so I could stop women as they went to leave and estimate how big they were on bottom. I, by the way, have no idea what scale is used to measure on bottom. I didn't know if it was just an S-M-L thing or if there was a number or if I was supposed to use terms

I heard in Sir Mix-A-Lot songs. I wound up just trying to draw something.

More shocking than the non-golddigging women, however, were the men. Who were hot. And socially well adjusted. With M bottoms. Basically, they were older guys, often divorced, who were serious about getting married and having kids and hated dating. Ironically, because of all the gold diggers. A divorced real estate developer told me, "My first reaction was, I'd never pay \$20,000 for a date. Then I thought about what I normally spend \$20,000 on." I was falling in love.

People were really honest. The developer said that not only did his marriage become sexless after he and his wife had children, but she refused for more than

10 years to go on vacation without the kids. He also said he liked Brazilian butts.

The next morning, I went

back to the office, sure of which woman to set the developer up with. But Barbie and Nicole were positive I was going to suggest this other woman since she and the developer both had kids and she was South American with an L butt. They accused me of being attracted to the woman I was suggesting, which, while

true, deeply offended my professionalism after a long day of staring at women as they walked away.

I agreed to go with their professional opinion. But I had trouble sleeping that night, thinking I was cheating two people out of true love and one person out of \$20,000. Yes, the woman was missing lots of things on his wish list-like an L butt-but they had similar temperaments, shared a sense of quiet confidence, and seemed as though they would banter and go on adventures and challenge each other. Barbie was so impressed by my dedication that she said she would give my choice a shot. They've been on six dates so far. If I have to write a speech for their wedding, I'm going to be pissed.

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Sex columnist Dan Savage talks about It Gets Better, his YouTube campaign in support of bullied gay teens

How did you come up with the idea for It Gets Better? Last summer I was reading

about teen suicides, speaking at colleges and thinking that what I should be doing is going to high schools. But I would never get permission, as a gay adult, to speak to gay kids. Then it occurred to me that in the YouTube era, I was waiting for permission I no longer needed.

Are there more suicides and incidents of bullying now, or are we simply more aware?

Both. I think that kids are coming out younger. So [some] suicides that used to be chalked up to "Who knows why they were sad?" we are now able to attribute to conflict about sexual orientation. And with the culture wars in the past 20 years, I don't think we realized how bad it was getting in [certain] places.

This campaign gives kids hope but doesn't change their lives right now. How can we do that? There's nothing about this cam-

Inere's nothing about this campaign that precludes doing more. But we also have to recognize that there are places where we will never be able to fix the gay-bullying problem. So this may be the best we can do.

How many It Gets Better videos have been uploaded? There are over 10,000.

Tell me about a video that surprised you.

There was a video that people saw and said, You're not going

to post this. Not only did I post it, but we put it in the top spot. It's by Gabrielle Rivera, who says, I'm a gay woman of color, and it doesn't get better. She contradicted the whole message. She said, What happens is you get stronger.

Who hasn't made a video yet who you hope will?

Rick Santorum. Tim Pawlenty. Sarah Palin. Glenn Beck. The Prime Minister of Britain, who leads the Conservative Party there, made a video, and we haven't seen one from anyone on the right in the U.S. to even say, You'r 14 and gay. Don't kill yourself.

It seems unlikely that
Santorum will participate.



Because of you, if one Googles Santorum, a very inappropriate definition is the first hit.

Rick Santorum has said insanely offensive things about gay and lesbian couples. He was a two-term sitting U.S. Senator with a lot of power, and my readers and I are a bunch of jackasses without a lot of power. We made a joke at his expense, and now he plays [the victim, which is all Republicans seem capable of doing these day.

You recently attended an antibullying conference at the White House. Did you meet the President?

No. But I was 20 feet away from him and the glamour supernova that is Michelle Obama. It's staggering how charismatic and beautiful she is. It takes a lot for a woman to ping onto my radar like that.

So much of your writing is not emotional. And this project is. I have a thick skin, but I have

a heart. Every once in a while, as rough and tumble and cynical as the column can be, I'll really reach out to someone. This is only out of character for people who perceive me as the potty mouth who writes a dirty sex column.

What advice can you give readers of TIME?

We talk about love in a way that's very unrealistic. "If you're in love, you're not going to want to have sex with anyone else but that person." That's not true. We need to acknowledge that truth so that people don't have to spend 40 years of marriage lying to and policing each other.



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